# marantz®

Model SR4400 User Guide

**AV Surround Receiver** 



# **CAUTION**

RISK OF ELECTRIC SHOCK DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

### WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

**ATTENTION:** POUR ÉVITER LES CHOC ÉLECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

#### NOTE TO CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV (Cable-TV) system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

#### NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device. pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### NOTE:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# IMPORTANT SAFETY INSTRUCTIONS

#### READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

- Read these instructions All the safety and operating instructions should be read before the product is operated.
- Keep these instructions The safety and operating instructions should be kept for future reference.
- Heed all warnings All warnings on the product and in the operating instructions should be adhered to.
- Follow all instructions All operating and use instructions should be followed.
- Do not use this apparatus near water Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.
- Clean only with dry cloth Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a dry cloth for cleaning.
- 7. Do not block any ventilation openings. Install in accordance with the manufacture's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.



AC POLARIZED PLUG

- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 15. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Classe B est conforme à la norme NMB-003 du Canada

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### INTRODUCTION

Thank you for purchasing the Marantz SR4400 Surround receiver.

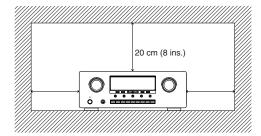
This remarkable component has been engineered to provide you with many years of home theater enjoyment. Please take a few minutes to read this manual thoroughly before you connect and operate the SR4400.

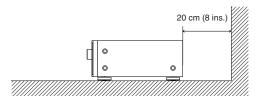
As there are a number of connection and configuration options, you are encouraged to discuss your own particular home theater setup with your Marantz A/V specialist dealer.

#### **CAUTIONS ON INSTALLATION**

For heat dispersal, leave at least 20 cm/8 inch of space between the top, back and sides of this unit and the wall or other components.

Do not obstruct the ventilation holes.





### DESCRIPTION



DTS was introduced in 1994 to provide 5.1 channels of discrete digital audio into home theater systems.

DTS brings you premium quality discrete multichannel digital sound to both movies and music. DTS is a multi-channel sound system designed to create full range digital sound reproduction.

The no compromise DTS digital process sets the standard of quality for cinema sound by delivering an exact copy

of the studio master recordings to neighborhood and home theaters.

Now, every moviegoer can hear the sound exactly as the moviemaker intended.

DTS can be enjoyed in the home for either movies or music on of DVD's, LD's, and CD's.

"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.



The advantages of discrete multichannel systems over matrix are well known.

But even in homes equipped for discrete multichannel, there remains a need for high-quality matrix decoding. This is because of the large library of matrix surround motion pictures available on disc and on VHS tape; and analog television broadcasts.

The typical matrix decoder of today derives a center channel and a mono surround channel from two-channel matrix stereo material. It is better than a simple matrix in that it includes steering logic to improve separation, but because of its mono, band-limited surround it can be disappointing to users accustomed to discrete multichannel.

Neo:6 offers several important improvements as follow.

- Neo:6 provides up to six full-band channels of matrix decoding from stereo matrix material. Users with 6.1 and 5.1 systems will derive six and five separate channels, respectively, corresponding to the standard home-theater speaker layouts.
- Neo:6 technology allows various sound elements within a channel or channels to be steered separately, and in a way which follows naturally from the original presentation.

 Neo:6 offers a music mode to expand stereo nonmatrix recordings into the five- or sixchannel layout, in a way which does not diminish the subtlety and integrity of the original stereo recording.



DTS-ES Extended Surround is a new multichannel digital signal format developed by Digital Theater Systems Inc. While offering high compatibility with the conventional DTS Digital Surround format, DTS-ES Extended Surround greatly improves the 360-degree surround impression and space expression thanks to further expanded surround signals. This format has been used professionally in movie theaters since 1999. In addition to the 5.1 surround channels (FL, FR, C, SL, SR and LFE), DTS-ES Extended Surround also offers the SB (Surround Back) channel for surround playback with a total of 6.1 channels. DTS-ES Extended Surround includes two signal formats with different surround signal recording methods, as DTS-ES Discrete 6.1 and DTS-ES Matrix 6.1.

"DTS", "DTS-ES Extended Surround" and "Neo:6" are trademarks of Digital Theater Systems. Inc.



Dolby Digital identifies the use of Dolby Digital (AC-3) audio coding for such consumer formats as DVD and DTV. As with film sound, Dolby Digital can provide up to five full-range channels for left, center, and right screen channels, independent left and right surround channels, and a sixth (".1") channel for low-frequency effects.

Dolby Surround Pro Logic II is an improved matrix decoding technology that provides better spatiality and directionality on Dolby Surround program material; provides a convincing three-dimensional soundfield on conventional stereo music recordings; and is ideally suited to bring the surround experience to automotive sound. While conventional surround programming is fully compatible with Dolby Surround Pro Logic II decoders, soundtracks will be able to be encoded

specifically to take full advantage of Pro Logic II playback, including separate left and right surround channels. (Such material is also compatible with conventional Pro Logic decoders.)

Dolby Digital EX creates six full-bandwidth output channels from 5.1-channel sources. This is done using a matrix decoder that derives three surround channels from the two in the original recording. For best results, Dolby Digital EX should be used with movies soundtracks recorded with Dolby Digital Surround EX.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.



Circle Surround II (CS-II) is a powerful and versatile multi-channel technology. CS-II is designed to enable up to 6.1 multi-channel surround sound playback from mono, stereo, CS encoded sources and other matrix encoded sources. In all cases the decoder extends it into 6 channels of surround audio and a LFE/subwoofer signal. The CS-II decoder creates a listening environment that places the listener "inside" music performances and dramatically improves both hi-fi audio conventional surround-encoded video material. CS-II provides composite stereo rear channels to greatly improve separation and image positioning – adding a heightened sense of realism to both audio and A/V productions.

CS-II is packed with other useful feature like dialog clarity (SRS Dialog) for movies and cinema-like bass enrichment (TruBass). CS-II can enable the dialog to become clearer and more discernable in movies and it enables the bass frequencies contained in the original programming to more closely achieve low frequencies — overcoming the low frequency limitations of the speakers by full octave.

SRS Circle Surround II, SRS Dialog, SRS TruBass, SRS and ( ) symbol are trademarks of SRS Labs. Inc.

SRS Circle Surround II, SRS Dialog and SRS TruBass technology are incorporated under license from SRS Labs, Inc.

### FEATURES

#### **BUILT-IN 6 CHANNEL POWER AMPLIFIER**

80 watts to each of the six main channels; the power amp section features an advanced, premium high- storage power supply capacitors, and fully discrete output stages housed in cast aluminum heat sinks.

All channels are equipped the large size screw type speaker terminals.

# 96 kHz/24-BIT D/A CONVERTER FOR ALL CHANNELS

High performance digital circuitry with 96 kHz / 24-bit D/A converter for all 7 channels.

#### SIMPLE SETUP FUNCTION

This unit has Simple Setup function for easy setup. You can setup all speaker settings by just selecting your room size and the number of your speakers with Simple Setup function. You can also setup customized settings just like conventional AV amplifiers.

#### DTS-ES

**DTS-ES** decoder built in to decode the impeccable 6.1-channel discrete digital audio from DTS-ES encoded DVD-Video discs, DVD-Audio discs and CDs.

#### **DOLBY DIGITAL EX**

**Dolby Digital EX** decoder built in to create six full-band width output channels from the 5.1-channel digital audio of DVDs, Digital TV, HDTV, satellite broadcasts and other sources.

### **DOLBY PRO LOGIC II**

**Dolby Pro Logic II** decoder provides better spatiality and directionality on Dolby Surround program material and provides a convincing three-dimensional sound field on conventional stereo music recordings.

#### DTS-NEO:6

**DTS-Neo:6** decoder built in to decode 6.1-channel surround sound from any stereo material.

#### **CIRCLE SURROUND II**

**CIRCLE SURROUND II** decoder built in to decode 6.1-channel surround sound from any stereo or passive matrix-encoded material.

#### **SOURCE DIRECT MODE**

**Source Direct mode** bypasses, tone controls and bass management for purest audio quality.

#### HT-EQ (HOME THEATER EQUALIZER) EQUIPPED

In a theater, center speaker is set behind the screen and it attenuates high frequency sound so high tone is recorded emphasized. This unit has HT-EQ (Home Theater Equalizer) function. It enables to play a movie in your home just like its creator wanted.

#### **6.1 CHANNEL PRE-AMP OUTPUTS**

**6.1 channel pre-amp outputs** for connection to external components such as a subwoofer and external power amplifiers.

#### 6.1CH DIRECT INPUT

**6.1ch direct inputs** accommodate future multichannel sound formats or an external digital decoder. (SACD, DVD-Audio, ...etc)

#### **4 DIGITAL INPUTS AND 2 DIGITAL OUTPUTS**

**4 Digital inputs** for connection to other sources, such as DVD player, Satellite tuner, CD player, CD recorder or MD deck.

**2 Digital outputs** for connection to CD recorder or MD deck.

#### 30 STATION RANDOM ACCESS PRESET TUNING

High-quality AM/FM tuner with 30 station random access preset tuning.

### **ACCESSORIES**



AAA-size batteries X 2



AM Loop Antenna

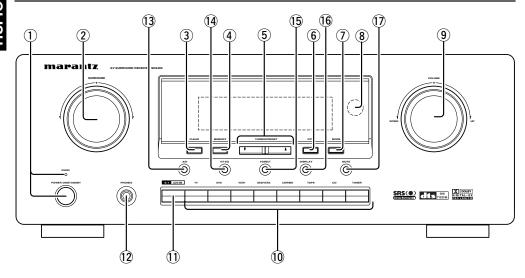


FM Antenna



Warranty card (USA, CANADA) User Guide

### FRONT PANEL



#### 1 POWER switch and STANDBY indicator

When this switch is pressed once, the unit turns ON and display appears on the display panel. When pressed again, the unit turns OFF and the STANDBY indicator lights.

When the STANDBY indicator is turned on, the unit is NOT disconnected from the AC power.

#### 2 SURROUND MODE Selector knob

When this knob is turned, the surround mode is switched sequentially.

#### Note:

• Available surround mode is depending on the input signal.

#### 3 CLEAR button

Press this button to cancel the station-memory setting mode or preset scan tuning.

#### (4) MEMORY button

Press this button to enter the tuner preset memory numbers or station names.

#### 5 TUNING UP / DOWN buttons

Press thses buttons to change the frequency or the preset number.

#### 6 F/P (FREQUENCY / PRESET) button

During reception of AM or FM, you can change the function of the UP/DOWN buttons for scanning frequencies or selecting preset stations by pressing this button.

#### 7 MODE button

Press this button to select the auto stereo mode or mono mode when the FM band is selected.

The "AUTO" indicator lights in the auto stereo mode.

#### 8 Infrared receiving (IR) sensor window

This window receives infrared signals for the remote control unit.

#### 9 VOLUME control knob

Adjusts the overall sound level. Turning the control clockwise increases the sound level.

# (AUDIO/ VIDEO)

These buttons are used to select the input sources.

The video function selector, such as TV, DVD, VCR1 and DSS/VCR2, selects video and audio simultaneously.

Audio function sources such as CD, TAPE, CDR/MD, TUNER, and 6.1CH-IN may be selected in conjunction with a Video source.

This feature (Sound Injection) combines a sound from one source with a picture from another. Choose the video source first, and then choose a different audio source to activate this function. Press **TUNER** button to switch the between FM or AM

#### 11 6.1CH IN button

Press this button to select the output of an external multi channel decoder.

Press this button again to return the preivious function.

#### 12 PHONES jack for stereo headphones

This jack may be used to listen to the SR4400's output through a pair of headphones. Be certain that the headphones have a standard 1 / 4" stereo phone plug. Note that the speakers will automatically be turned off when the headphone jack is in use.

#### Notes:

- When using headphones, the surround mode will automatically change to STEREO.
- The surround mode returns to the previous setting as soon as the plug is removed from the jack.

#### A/D (Analog/Digital) SELECTOR button

This is used to select between the analog and digital inputs.

#### Note:

• This button is not used for an input source that is not set to a digital input in the system setup menu.

#### 14 HT-EQ button

Used to turn on or off HT (Home Theater)-EQ mode when the surround mode is set as AUTO, DOLBY, DTS or STEREO.

This mode compensates for the audio portion of a movie sounding "bright". When this button is pressed, "EQ" indicator lights up.

#### 15 S- (Source) DIRECT button

When this button is pressed, the tone control circuitry is bypassed as well as Bass Management.

#### Notes:

- The surround mode is automatically switched to AUTO when the source direct function is turned on.
- S-DIRECT is turned off when the other surround mode is selected with the SURROUND mode selector knob or the surround mode buttons of the remote controller.

 Additionally, Speaker Configurations are fixed automatically as follow.

(Front SPKR = Large, Center SPKR = Large, Surround SPKR = Large, Sub woofer = On)

#### 16 DISPLAY button

When this button is pressed once, the display is dimmed.

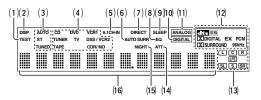
When this button is pressed twice, the display is turned off and "DISP" indicator lights up.

Press this button again to turn the display ON again.

#### 17 MUTE button

Press this button to mute the output to the speakers and headphones. Press it again to return to the previous volume level.

#### **FL DISPLAY**



#### (1) TEST tone indicator

This indicator blinks in generating the test tone in speaker level setup.

#### (2) DISP (Display Off) indicator

This indicator lights when the SR4400 is in the display off condition.

#### (3) TUNER's indicators

AUTO: This indicator illuminates when the tuner's Auto mode is in use.

ST(Stereo): This indicator illuminates when an

FM station is being tuned in stereo

condition.

TUNED: This indicator illuminates when a

station is being received with sufficient signal strength to provide acceptable listening quality.

#### (4) INPUT SOURCE indicators

These indicators show the current input source.

#### (5) 6.1 CHANNEL DIRECT IN indicator

This indicator lights up when the 6.1CH-IN has been selected as a input source.

# (6) AUTO.SURR (Auto Surround mode) indicator.

This indicator illuminates to show that the AUTO SURROUND mode is in use.

#### (7) DIRECT (Soruce direct) indicator

This indicator lights when the SR4400 is in the SOURCE DIRECT mode.

#### (8) EQ mode indicator

This indicator lights when the HT-EQ function is active.

#### (9) SLEEP timer indicator

This indicator lights when the seep timer function is in use.

#### (10) DIGITAL Input Indicator

This indicator lights when digital input has been selected.

#### (11) ANALOG input indicator

This indicator lights when an analog input source has been selected.

# (12) SIGNAL FORMAT indicators DID DIGITAL, EX, DID SURROUND, dts, ES, PCM and 96kHz

When the selected input is a digital source, some of these indicators will light to display the specific type of signal in use.

# (13) ENCODED CHANNEL STATUS indicators

These indicators display the channels that are encoded with a digital

input signal. If the selected digital input signal is Dolby Digital 5.1ch or DTS 5.1ch, "L", "C", "R", "SL", "SR" and "LFE" will light up.If the digital input signal is 2 channel PCM-audio, "L" and "R" will be displayed.

If Dolby Digital 5.1ch signal with Surround EX flag or DTS-ES signal comes in, "L", "C", "R", "SL", "S", "SR" and "LFE" will show.

#### (14) ATT (Attenuation) indicator

This indicator lights when the attenuation function is active.

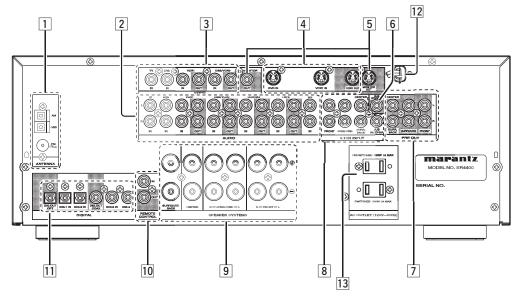
#### (15) NIGHT mode indicator

This indicator lights when the SR4400 is in the Night mode, which reduces the dynamic range of digital program material at low volume levels.

#### (16) Main Information Display

This display shows messages relating to the status, surround mode, tuner, volume level or other aspects of unit's operation.

### REAR PANEL



### 1 FM antenna terminal (75 ohms)

Connect an external FM antenna with a coaxial cable, or a cable network FM source.

#### AM antenna and ground terminals

Connect the supplied AM loop antenna. Use the terminals marked "AM" and "GND". The supplied AM loop antenna will provide good AM reception in most areas. Position the loop antenna until you hear the best

# 2 AUDIO IN/OUT (CD, TAPE, CDR/MD, TV, DVD, VCR1, DSS/VCR2)

These are the analog audio inputs and outputs. There are 7 audio inputs (4 of which are linked to video inputs) and 4 audio outputs (2 of which are linked to video outputs). The audio jacks are nominally labeled for cassette tape decks, compact disc players, DVD players and etc.... The audio inputs and outputs require RCA-type connectors.

#### 3 VIDEO IN/OUT (TV, DVD, VCR1 and DSS/ VCR2)

There are 4 composite video inputs and 2 composite video outputs. Connect VCR, DVD player, and other video components to the video input.

The output channels can be used to be connected to video recorder for making recordings.

#### 4 S-VIDEO IN/OUT

There are 2 S-VIDEO inputs and one S-VIDEO output.

Connect VCR, DVD player, and other video components to the S-VIDEO input.

The output channel can be used to be connected to video recorder for making recordings.

S-VIDEO sources can be viewed through the S-VIDEO output, and composite sources can only be viewed through the composite output.

#### 5 MONITOR OUT

There are 2 monitor outputs and each one includes both composite video and S-video configurations.

#### 6 Subwoofer Output

Connect this jack to the line level input of a powered subwoofer. If an external subwoofer amplifier is used, connect this jack to the subwoofer amplifier input. If you are using two subwoofers, either powered or with a 2 channel subwoofer amplifier, connect a "Y" connector to the subwoofer output jack and run one cable from it to each subwoofer amplifier.

#### 7 Preamp Outputs (L, R, SL, SR, SB, C)

Jacks for L (front left), R (front right), C (Center), SL (surround left), SR (surround right) and SB (surround back).

Use these jacks for connection to some external power amplifiers.

#### 8 6.1 CHANNEL INPUT

By connecting a DVD Audio player, SACD multi channel player, or other component that has a multi channel port, you can playback the audio with 5.1 channel or 6.1 channel output.

#### 9 Speaker outputs terminals

Six terminals are provided for the front left, front right, front center, surround left, surround right and surround back speakers.

#### 10 REMOTE CONT. IN/OUT terminals

Connect to a Marantz component equipped with remote control (RC-5) terminals.

# DIGITAL INPUT (Dig.1 - 4) / OUTPUT (coaxial, optical)

These are the digital audio inputs and outputs. There are 2 digital inputs with coaxial jacks, 2 with optical jacks.

The inputs accept digital audio signals from a compact disc, LD, DVD, or other digital source component.

For digital output, there is 1 coaxial output and 1 optical output.

The digital outputs can be connected to MD recorders, CD recorders, DAT decks, or other similar components.

#### 12 Power cable

Connect to AC power outlet. SR4400 can be powered by 120 V AC only.

#### Caution:

• In order to avoid potential turn-off thumps, anything plugged in here should be powered up before the SR4400 is turned on.

#### 13 AC OUTLETS

Connect the AC power cables of components such as a DVD and CD player to these outlets. SWITCHED and UNSWITCHED outlets are provided.

The one marked SWITCHED provides power only when the SR4400 is turned on and is useful for components which you use every time you play your system.

The one marked UNSWITCHED is always live as long as the SR4400 is plugged into a live outlet. A component connected here may be left on permanently, or may be switched off with its own power switch.

#### Caution:

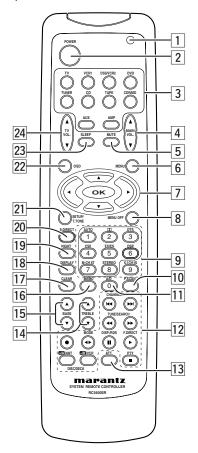
- In order to avoid potential turn-off thumps, anything plugged in here should be powered up before the SR4400 is turned on.
- The capacity of these AC outlets are 100W. Do not connect devices that consume electricity more than the capacity to these AC outlets. If total power consumption of connected devices exceeds the capacity, protection circuit shuts down the power supply.

# REMOTE CONTROL OPERATION

#### **FUNCTION AND OPERATION**

The provided remote control unit is a universal remote controller. The **POWER** button, numeric buttons and control buttons are used in common across different input source components.

The input source controlled with the remote control unit changes when one of the input selector buttons is pressed.



#### 1 Transmitting indicator

Lights up during a button is pressed and an infrared signal is sending.

#### 2 (Main) POWER buttons

Press to switch the power of the SR4400 ON or OFF after pressing the **AMP** button.

# Input selector buttons/ FUNCTION SELECTOR buttons (AUDIO/VIDEO INPUT)

These buttons are used to select a Audio or Video source component. Press one of these buttons once to change the function of the remote control. Press same button within 2 seconds, the input function of the SR4400 is changed.

#### Note:

- CDR/MD button is set CDR function at initial. To switch MD function, press and hold down CDR/ MD button and press 2 button.
- To return CDR function, press and hold down CDR/MD button and press 1 button.
- AUX button is unavailable for SR4400.

#### 4 MAIN VOLUME UP (▲) /DOWN (▼) buttons

Main volume control of the SR4400. The front, surround, center and subwoofer channel volumes controlled by these buttons simultaneously.

#### 5 MUTE button

Muting button of the SR4400. Press this button decrease the sound temporarily . Press this button again to return to the previous sound.

When this button is pressed, "MUTE" indicator lights up.

#### 6 MENU button

This button is used to enter the SETUP MAIN MENU.

### 7 Cursor buttons (◀, ▶, ▲, ▼, OK)

Use these button when operating the SETUP MAIN MENU.

See page 15.

#### 8 MENU OFF button

This button is used to exit from the SETUP MAIN MENU.

# 9 Numeric buttons 1 to 9 (A, B, C ... Z, -) / Surround mode buttons

#### Numeric buttons

These buttons are used to enter figures in the selection of a tuner preset station and station name preset or to set select a CD track number, etc. The functions of these buttons are dependent on the function button selected.

### Surround mode buttons (when AMP mode is selected)

These buttons are used to select the surround mode. **Note:** 

• The surround mode is set to 6-Stereo mode by pressing **M-CH ST** button.

# P.SCAN (preset scan) button (when TUNER mode is selected)

This button is used to start preset scan when SR4400 is selected TUNER mode.

#### 11 0 / A/D button

#### 0 button

This button is used to enter the number "0"

#### A/D button (when AMP mode is selected)

This is used to switch between the analog and digital inputs.

#### 12 CONTROL buttons

These buttons are used when operating the CD player, TAPE deck, etc.

The function of these buttons are dependent on the function button selected.

For the controllable functions of each input function, please refer to contrable function table on the page 9.

#### 13 ATT (attenuator) button

When the input signal is too high and the voice distorts even by throttling the SR4400 VOLUME control, turn on this function. "ATT" is indicated when this function is activated.

The input level is reduced. Attenuator is invalid for use with the output signal of "REC OUT".

#### Note:

• This function is unavailable during the digital input is selected.

#### 14 TREBLE UP (▲) /DOWN (▼) buttons

These buttons are used to adjust the tone control of high frequency sound for left and right speaker.

#### 15 BASS UP (▲) /DOWN (▼) buttons

These buttons are used to adjust the tone control of low frequency sound for left, right and subwoofer speaker.

#### 16 MEMO button

Memory enable button for various preset functions.

#### 17 CLEAR button

This button is used to cancel for certain memory or programming operations.

#### 18 DISPLAY button

When this button is pressed once, the display is dimmed.

When this button is pressed twice, the display is turned off and the "DISPLAY OFF" indicator lights up.

Press this button again to turn on the display again.

#### 19 NIGHT button

Pressing this button prevents the Dolby Digital signal from playback at a loud voice. This function reduces the voice by 1/3 to 1/4 at maximum. Thus, it eliminates the occurrence of an abruptly loud voice at night. However, the function is valid only for the case when the Dolby Digital signal is entered into OPTICAL or COAXIAL and data to compress the voice exists in the signal to be played back.

When this button is pressed, "NIGHT" indicator lights up.

### 20 S- ( Source) DIRECT button

When this button is pressed, the tone control circuit is bypassed as well as Bass Management.

#### 21 SETUP / T.TONE button

Test tone function is used for adjusting the balance between the volume levels of speaker channels. Press **AMP** button and press this button to enter the test tone mode.

#### 22 OSD button

#### Note:

• This button is unavailable for SR4400.

#### 23 SLEEP (sleep timer) button

This button is used for setting the sleep timer. It can be operated the same way as the button in unit.

#### 24 TV VOLUME UP (▲) /DOWN (▼) buttons

These buttons increase or decrease TV's volume.

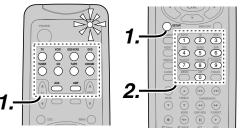
# PROGRAMMING THE REMOTE CONTROLLER

The remote controller RC5400SR must be programmed to use the codes for your appliances of different brands. This is done by keying in a 4-digit code or by scanning the codes until the correct one is found. We recommend to using the 4-digit code. This mode is faster and more reliable. The code scanning method should be used only if you cannot find the code for one of your appliances. The codes are listed at the end of this book.

#### Important:

- Use the remote control buttons for programming, not the buttons of the receiver or other appliances.
- Some codes may be not match your equipment.
   In this case, your equipment cannot be controlled with this remote controller.

#### PROGRAMMING WITH THE 4-DIGIT CODE

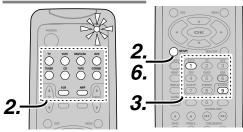


- Press and hold down the function button for the appliance which should be controlled and press SETUP until the indicator blinks twice.
- 2. Press the 4-digit code for appliance (code table at the end of this book)
- **3.** When the procedure is successful, the indicator will blink twice.

#### Note:

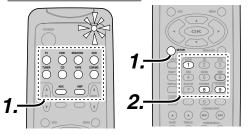
 If the indicator did not blink twice, then repeat steps 1 through 2 and try entering the same code again.

#### SCANNING THE CODE TABLE



- Switch on the appliance which should be controlled.
- Press and hold down the function button for appliance which should be controlled and press SETUP until the indicator blinking twice.
- **3.** Press the code 9 9 1. The indicator will blink twice.
- 4. Aim the remote control at the appliance and slowly alternate between pressing POWER and the function button for the appliance.
- **5.** Stop when the appliance turns off.
- **6.** Press **SETUP** once to lock in the code.

#### RESETTING THE ALL CODE



- Press and hold down the any function button and press SETUP until the indicator blinking twice.
- Press the code 9 8 1.
   The indicator will blink twice.
   Then, RC5400SR will return to the factory preset code.

#### Note:

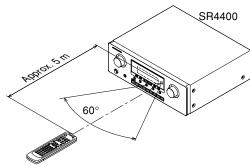
After this procedure, the selected function button is set initial code and other function buttons are set initial code too.

# OPERATION OF REMOTE CONTROL UNIT

#### REMOTE CONTROL

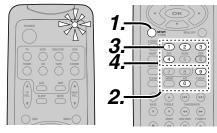
The distance between the transmitter of the remote control unit and the IR SENSOR of the SR4400 should be less than about 5 meters. If the transmitter is pointed to a direction other than the IR SENSOR or if there is an obstacle between them, remote control may not be possible.

#### Remote-controllable range



Remote control unit (RC5400SR)

### CHECKING THE CODE



- Press and hold down the function button for appliance which should be controlled and press SETUP until the indicator blinking twice.
- **2.** Press the code **9 9 0**.

The indicator will blink twice.

- To view the code for first digit, press 1 once. Wait 3 seconds, count the indicator blinks (e.g. 3 blinks = 3) and write down the number. Note:
- If a code digit is "0", the indicator will not blink.
  Repeat step 3 three more times for remaining digits. Use 2 for the second digit, 3 for the third digit, and 4 for the fourth digit.

Once you have found and the codes for your various appliances, you may want to write them down here.

<u> </u>	 	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
VCR_	 	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
DSS _	 	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
$\bar{D}\bar{\Lambda}\bar{D}^-$	 	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
$\bar{C}\bar{D}^$	 	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
TAPE	 	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
CDR	 	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-
MD	 	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

#### **LOADING BATTERIES**

The life of the batteries used with the remote control unit is about 4 months with normal use. Also be sure to replace batteries earlier when you notice that they are getting weak.

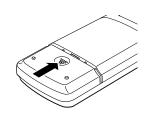
1. Remove the back cover.



**2.** Insert the new batteries (AAA type) with correct ⊕ and ⊝ polarity.



3. Close until it clicks.



### **GENERAL INFROMATION OF RC5400SR TO SR4400**

To control the SR4400 by your RC5400SR, you have to select the device AMP or TUNER by function selector button. Please refer as below for the deatails in AMP and TUNER mode.

#### **AMP MODE**



Turns the SR4400 on and off				
Selects a particular source component				
AUX button is unavailable for SR4400.				
Sets the sleep timer function				
Decreases the sound temporarily				
Adjusts the over all sound level				
Enters the SETUP MENU				
Moves the cursor for setting in SETUP MENU				
Enters the SETUP MENU				
Confirms the setting in SETUP MENU				
Enters the test tone mode for setting the Speaker Level Setup				
Exits from the SETUP MENU				
Selects the Source Direct mode				
Turns on or off NIGHT mode				
Selects the surround mode				
Selects the 6.1CH IN				
Switches between the analog and digital inputs				
Adjusts the tone control of low frequency sound				
Adjusts the tone control of high frequency sound				
Reduces the input level				

<sup>\*</sup> These buttons are used to control SR4400 in any function mode.

#### **TUNER MODE**



TUNER	Selects a frequency band
0-9	Inputs the numeric
CLEAR	Clears the inputting
МЕМО	Enters the tuner preset memory numbers
P.SCAN	Starts preset scan
CHANNEL/SKIP	Selects a preset station
<b> </b> ⊲⊲ / <b>▶</b> ▶	Changes a PTY type
TUNE/SEARCH	Tunes a station
<b>◄</b> / <b>&gt;&gt;</b>	
MODE ◀ ▶	Selects the auto stereo mode or mono mode
F.DIRECT ▶	Selects the "Frequency direct input"

#### THE CONTRABLE FUNCTION TABLE



	TV	VCR	DVD	DSS	CD	TAPE	CDR	MD
POWER	POWER	POWER	POWER	POWER	POWER	POWER	POWER	POWER
MENU	CALL UP MENU	CALL UP MENU	CALL UP MENU	CALL UP MENU	-	-	-	-
Cursor	Cursor	Cursor	Cursor	Cursor	-	-	-	-
OK	OK	OK	OK	OK	-	-	-	-
SETUP/T.TONE	-	-	SETUP MENU	-	-	-	-	_
MENU OFF	I	CANCEL MENU	1	CANCEL MENU	I	ı	-	_
0 - 9	INPUT NUMERIC							
CLEAR	INPUT CLEAR	TAPE SPEED	INPUT CLEAR	-	INPUT CLEAR	INPUT CLEAR	INPUT CLEAR	INPUT CLEAR
МЕМО	-	-	CALL PROGRAM	-	CALL PROGRAM	CALL PROGRAM	-	CALL PROGRAM
CHANNEL/SKIP ◄◄	CH-	PREV	PREV	-	PREV	PREV	PREV	PREV
CHANNEL/SKIP ►►	CH+	NEXT	NEXT	-	NEXT	NEXT	NEXT	NEXT
TUNE/SEARCH ◀◀	-	REWIND	REWIND	-	REWIND	REWIND	REWIND	REWIND
TUNE/SEARCH ►►	-	FF	FF	-	FF	FF	FF	FF
● (REC)	-	REC	-	-	-	REC	REC	REC
MODE ◀ ▶	-	-	-	-	-	DIRECTION	-	-
DISP/RDS II	CH DISPLAY	PAUSE	PAUSE	_	PAUSE	PAUSE	PAUSE	PAUSE
F.DIRECT ►	-	PLAY	PLAY	-	PLAY	PLAY	PLAY	PLAY
+/A/ANT	VIDEO	TV/VCR	DISC+	-	DISC+	DECK A	-	-
+/B/VCR	VIDEO	TV/VCR	DISC+	-	DISC-	DECK B	-	-
PTY ■		STOP	STOP	-	STOP	STOP	STOP	STOP

### **CONNECTIONS**

#### SPEAKER PLACEMENT

The ideal surround speaker system for this unit is 7-speaker systems, using front left and right speakers, a center speaker, surround left and right speakers, a surround back and a subwoofer.

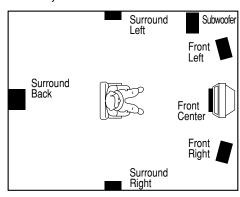
For best results we recommend that all front speakers be of the same type, with identical or similar driver units. This will deliver smooth pans across the front sound stage as the action moves from side to side.

Your center channel speaker is very important as over 80 % of the dialog from a typical motion picture emanates from the center channel.

It should possess similar sonic characteristics to the main speakers. Surround channel speakers need not be identical to the front channel speakers, but they should be of high quality.

The surround center speaker is useful for playback of Dolby Digital Surround EX or DTS-ES. One of the benefits of both Dolby Digital (AC-3) and DTS is that surround channels are discrete full range, while they were frequency limited in earlier "Pro Logic' type systems.

Bass effects are an important part of home theater. For optimal enjoyment a subwoofer should be used as it is optimized for low frequency reproduction. If you have full range front speakers, however, they may be used in place of a subwoofer with proper setting of the switches in the menu system.



#### Front left and right speakers

We recommend to set the front L and R speakers with 45-60 degrees from the listening position.

#### Center speaker

Align the front line of the center speaker with the front L/R speakers. Or place the center speaker a little backward from the line.

#### Surround left and right speakers

Place the speakers right beside of the listening position or a little forward. Do not place the speakers backward of the listening position.

#### Surround back speaker

Place the speaker behind of the listening position.

#### Subwoofer

We recommend to use a sub-woofer to have maximum bass effect. Sub-woofer bears only low frequency range so you can place it anywhere in the room.

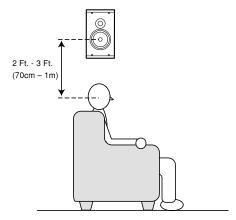
#### **HEIGHT OF THE SPEAKER UNITS**

### Front left and right speakers, and a center speaker

Align the tweeters and mid-range drivers on the three front speakers on the same height as well as possible.

### Surround left and right speakers, and surround back speaker

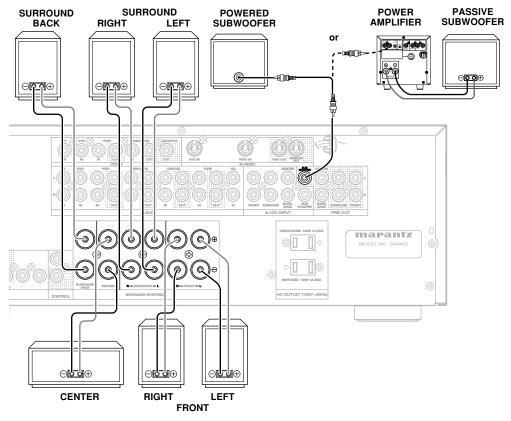
Place the surround left, right and surround back speakers higher to your ears (2 Ft. - 3 Ft. (70cm – 1m)). Also place the speakers on the same height.



#### Note:

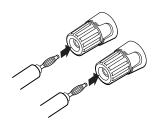
• Use magnetically-shielded speakers for front left, right and the center speakers when the speakers are installed near the TV and the TV is a monitor type.

#### **CONNECTING SPEAKERS**



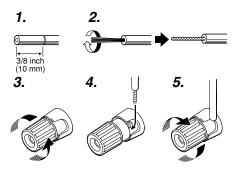
#### **CONNECTING BANANA PLUG**

Banana plug connections are also possible. Tighten the knob by turning clockwise and then insert the banana plug.



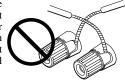
#### **CONNECTING SPEAKER WIRE**

- **1.** Strip away approx. 10 mm of wire insulation.
- Twist the bared wire ends tight to prevent short circuits.
- **3.** Loosen the knob by turning counterclockwise.
- **4.** Insert the bare part of the wire into the hole in the side of each terminal.
- **5.** Tighten the knob by turning clockwise to secure the wire.



#### Cautions:

- Be sure to use speakers with the specified impedance shown on the rear panel of this unit.
- To prevent damage to circuitry, do not let the bare speaker wires touch each other and do not let them touch any metal part of this unit.



- Do not touch the speaker terminals when the power is on. It may cause electric shocks.
- Do not connect more than one speaker cable to one speaker terminal. Doing so may damage this unit.

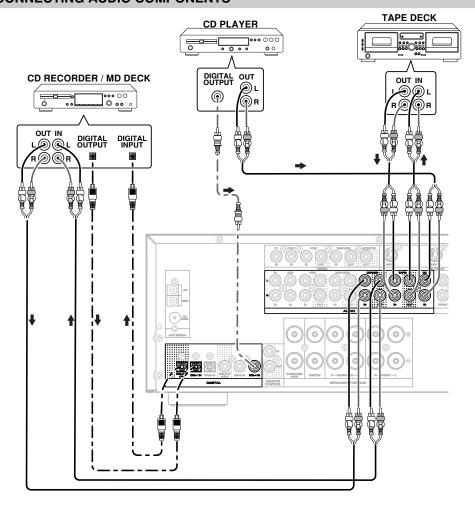
#### Note:

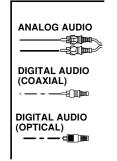
 Be sure to connect the positive and negative cables for the speaker properly. If they are missconnected, the signal phase will reversed and the signal quality will be corrupted.

#### **CONNECTING A SUBWOOFER**

Use the PRE OUT SUBWOOFER jack to connect a powered subwoofer (power amplifier built in ). If your subwoofer is passive type (power amplifier is not built in), connect a monaural power amplifier to the PRE OUT SUBWOOFER jack and connect the subwoofer to the amplifier.

#### **CONNECTING AUDIO COMPONENTS**





The output audio signal from the TAPE OUT jack and the CD-R/MD OUT jack is the sound source currently selected.

#### Caution:

• Do not connect this unit and other components to mains power until all connections between components have been completed.

#### Notes:

- Insert all plugs and connectors securely. Incomplete connections may make noise.
- Be sure to connect the left and right channels properly.
- Red connectors are for the R(right) channel, and white connectors are for the L(left) channel.
- Be sure to connect input and output properly.
- Refer to the instructions for each component that is connected with this unit.
- Do not bind audio/video connection cables with power cords and speaker cables will result in generating hum or other noise.

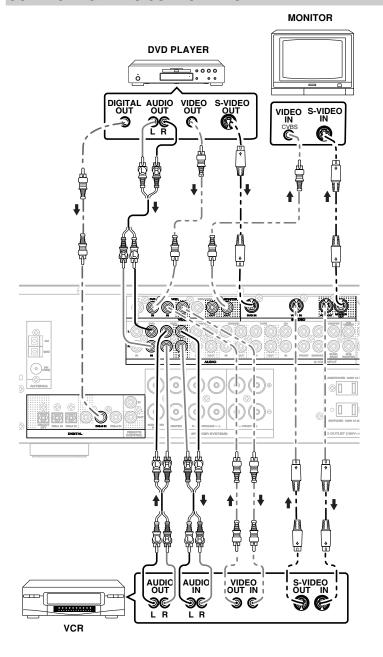
#### **CONNECTING DIGITAL AUDIO COMPONENTS**

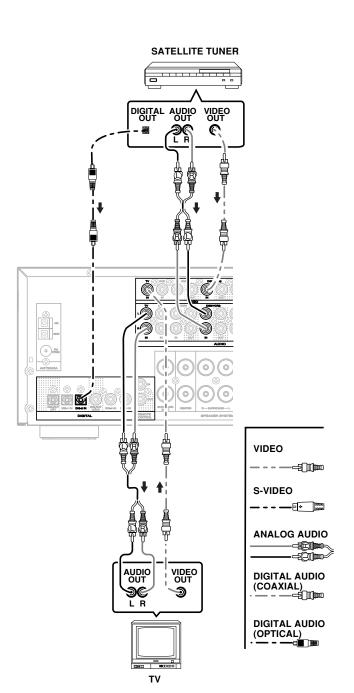
- There are four digital inputs, two coaxial jacks and two optical jacks, on the rear panel. You can use these jacks to input PCM, Dolby Digital and DTS bitstream signals from a CD, DVD, or other digital source components.
- There are one digital output with coaxial jack and one with optical jack on the rear panel.
   These jacks can be connected to CD recorder, MD deck.
- Setup the digital audio format of DVD player, or other digital source component. Refer to the instructions for each component to be connected to digital input jacks.
- Use fiber optical cables(optical) for DIG-1,2 input jacks. Use 75 ohms coaxial cables(for digital audio or video) for DIG-3,4 input jacks.
- You can designate the input for each digital input/output jacks according to your component. See page 16.

#### Notes:

- There is no Dolby Digital RF input jack. Please use an external RF demodulator Dolby Digital decoder when connecting the Dolby Digital RF output jack of the video disc player to the digital input jack.
- The digital signal jacks on this unit conform to the EIA standard. If you use a cable that does not conform to this standard, this unit may not function properly.
- Each type of audio jack works independently. Signals input through the digital and analog jacks are output through the corresponding digital and analog jacks, respectively.

#### **CONNECTING VIDEO COMPONENTS**





#### VIDEO, S-VIDEO JACKS

There are two types of video jacks on the rear panel.

#### VIDEO jack

The video signal for the VIDEO jacks is the conventional composite video signal.

#### S-VIDEO jack

The video signal is separated into luminance(Y) and color(C) signals for the S-VIDEO jack. The S-VIDEO signals enables high-quality color reproduction. If your video component has an S-VIDEO output, we recommend to use it. Connect the S-VIDEO output jack on your video component to the S-VIDEO input jack on this unit.

#### Notes:

- Be sure to connect the left and right audio channels properly.
- Red connectors are for the R(right) channel, and white connectors are the for L(left) channel.
- Be sure to connect input and output of video signal properly.
- Each type of video jack works independently. Signals input to the VIDEO(composite) and S-VIDEO jacks are output to the corresponding VIDEO(composite) and S-VIDEO jacks, respectively.
- You may need to setup the digital audio output format of your DVD player, or other digital source component. Refer to the instructions of the each component connected to the digital input jacks.
- There is no Dolby Digital RF input jack. Please use an external RF demodulator with Dolby Digital decoder to connect a video disc player with the Dolby Digital RF output jack to the digital input jack on this unit.

#### **ADVANCED CONNECTING**

#### **DVD AUDIO PLAYER** or SACD MULTI CHANNEL PLAYER CENTER 9 \_000 FRONT SURR. SURR. BACK SUB WOOFER **POWER** AMPLIFER L G R G FRON SURR. BACK SUF R Subwoofer Front Front Center Left Right Surround Surround Left Right Surround

#### **CONNECTING MULTI CHANNEL AUDIO SOURCE**

The 6.1CH INPUT jacks are for multi channel audio source such as SACD multi channel player, DVD audio player or external decoder.

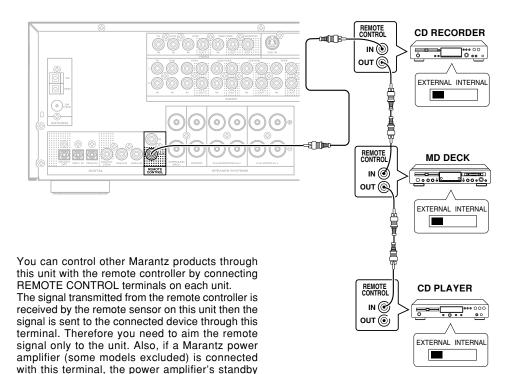
If you use these jacks, switch on 6.1CH INPUT and setup 6.1CH INPUT level by using SETUP MAIN MENU. See page 20.

### CONNECTING EXTERNAL POWER AMPLIFIER

The PREOUT jacks are for connecting external power amplifiers , you can have better sound quality.

Be sure to connect each speaker to the corresponding external power amplifier.

#### **CONNECTING REMOTE CONTROL JACKS**

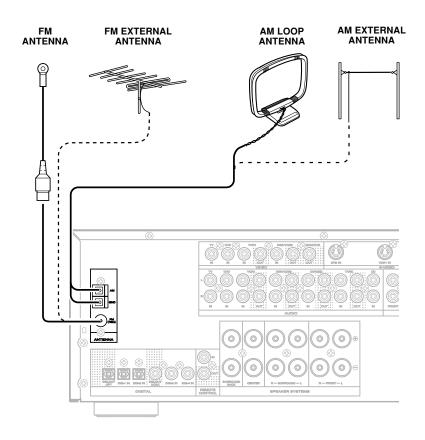


Set the REMOTE CONTROL SWITCH on the units other than this unit to EXT.(EXTERNAL) for this feature.

function is synchronized by pressing the POWER

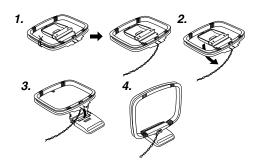
button on the remote.

#### **CONNECTING THE ANTENNA TERMINALS**



#### ASSEMBLING THE AM LOOP ANTENNA

- Release the vinyl tie and take out the connection line.
- **2.** Bend in the reverse direction.
- Inserting into the hole to attach the loop antenna to the antenna stand.
- **4.** With the antenna on top any stable surface.



### **CONNECTING THE SUPPLIED ANTENNAS**

#### Connecting the supplied FM antenna

The supplied FM antenna is for indoor use only. During use, extend the antenna and move it in various directions until the clearest signal is received.

Fix it with push pin or similar implements in the position that will cause the least amount of distortion.

If you experience poor reception quality, an outdoor antenna  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

may improve the quality.

#### Connecting the supplied AM loop antenna

The supplied AM loop antenna is for indoor use only.

Set it in the direction and position where you receive the clearest sound. Put it as far away as possible from the unit, televisions, speaker cables, and power cords.

If you experience poor reception quality, an outdoor antenna may improve the quality.

- Press and hold down the lever of the AM antenna terminal.
- Insert the bared wire into the antenna terminal.
- 3. Release the lever.

#### **CONNECTING AN FM OUTDOOR ANTENNA**

#### Notes:

- Keep the antenna away from noise sources (neon signs, busy roads, etc.).
- Do not put the antenna close to power lines. Keep it well away from power lines, transformers, etc.
- To avoid the risk of lightning and electrical shock, grounding is necessary.

#### **CONNECTING AN AM OUTDOOR ANTENNA**

An outdoor antenna will be more effective if it is stretched

horizontally above a window or outside.

#### Notes:

- Do not remove the AM loop antenna.
- To avoid the risk of lightning and electrical shock, grounding is necessary.

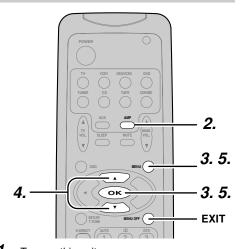


After all components are connected, initial setup must be performed.

#### **SETUP MENU SYSTEM**

The SR4400 incorporates an menu on the front display, which makes various operations possible by using the cursor  $(\blacktriangle, \blacktriangledown, \blacktriangleleft, \blacktriangleright)$  and **OK** buttons on the remote control.

# ENTER THE DESIRED MENU ITEM OF THE SETUP MENU

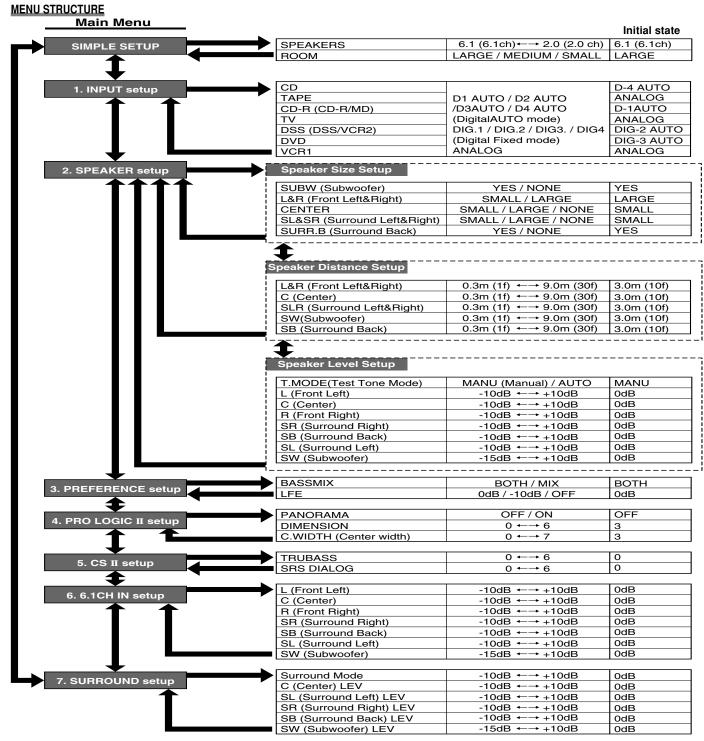


- **7.** Turn on this unit.
- Press the AMP button of the remote control to set the amp mode.
- 3. Press the MENU button or the OK button to enter the SETUP MENU. SIMPLE SETUP is displayed and you can enter the SIMPLE SETUP menu by pressing
- Press the ▲ or ▼ cursor button to select the MAIN MENU item.

the MENU button or the OK button.

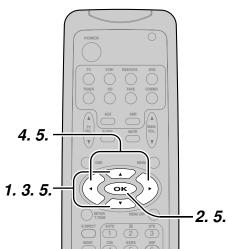
Press the OK button or the MENU button to enter the desired menu item.

After finishing all setup, press the **MENU OFF** button to exit the SETUP MENU.



#### SIMPLE SETUP

You can setup the speaker conditions quickly with SIMPLE SETUP menu. In this menu, the number of speakers and speaker delay time can be set. These settings can be changed more detail in "2. SPEAKER SETUP" menu.



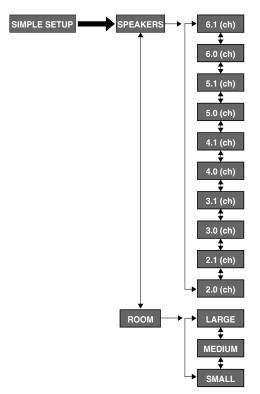
- Select "SIMPLE SETUP" in SETUP MAIN MENU with the ▲ or ▼ cursor button.
- **2.** Press the **OK** button to enter the menu.
- Press the ▲ or ▼ cursor button to select a desired item.
- **4.** Press **◄** or **▶** cursor button to select the speaker number or room size.
- When you select "TO MAIN MENU" by pressing the ▲ or ▼ cursor button, you can return the SETUP MAIN MENU by pressing the OK button.

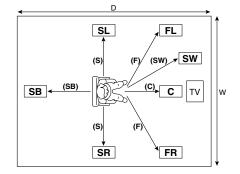
Or press the ◀ or ► cursor button to select "EXIT", then press the **OK** button to exit the SETUP MENU.

#### Note

• All Simple Setup menu is reset when the speaker setting is changed with Speaker Setup menu.

#### MENU STRUCTURE of Simple Setup





### The relation of the speakers number and conectted speaker

CHANNEL	Front L/R (F)	Front Center (C)	Surround L/R (S)	Surround Back (SB)	Sub woofer (SW)
6.1 ch	LARGE	SMALL	SMALL	YES	YES
6.0 ch	LARGE	SMALL	SMALL	YES	NONE
5.1 ch	LARGE	SMALL	SMALL	NONE	YES
5.0 ch	LARGE	SMALL	SMALL	NONE	NONE
4.1 ch	LARGE	NONE	SMALL	NONE	YES
4.0 ch	LARGE	NONE	SMALL	NONE	NONE
3.1 ch	LARGE	SMALL	NONE	NONE	YES
3.0 ch	LARGE	SMALL	NONE	NONE	NONE
2.1 ch	LARGE	NONE	NONE	NONE	YES
2.0 ch	LARGE	NONE	NONE	NONE	NONE

#### The relation of the room size and floor space

SIZE	Floor space	Width (W)	Depth (D)	Imaging Di	stance
				Front (F)	6 ft. (1.8 m)
				Center (C)	5 ft. (1.5 m)
SMALL	10 m <sup>2</sup>	2.7 m	3.6 m	Surround (S)	4 ft. (1.2 m)
				Surr. Back (SB)	5 ft. (1.5 m)
				Sub Woofer (SW)	5 ft. (1.5 m)
	MEDIUM 16 m <sup>2</sup> 3.6 m		Front (F)	7 ft. (2.1 m)	
		3.6 m	4.5 m	Center (C)	6 ft. (1.8 m)
MEDIUM				Surround (S)	5 ft. (1.5 m)
				Surr. Back (SB)	7 ft. (2.1 m)
				Sub Woofer (SW)	6 ft. (1.8 m)
				Front (F)	9 ft. (2.7 m)
				Center (C)	8 ft. (2.4 m)
LARGE	24 m²	4.5 m	5.4 m	Surround (S)	7 ft. (2.1 m)
				Surr. Back (SB)	8 ft. (2.4 m)
				Sub Woofer (SW)	8 ft. (2.4 m)

The relation of the room size and floor space is a roughly standard.

# 1. INPUT SETUP (ASSIGNABLE DIGITAL INPUT)

Four digital inputs can be assigned as the desired source.

Use this menu to select the digital input jack to be assigned to the input source.

The Input Setup consists of 9 items, which are as below.

#### • D1AUTO to D4AUTO : Digital AUTO mode

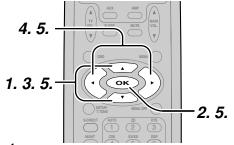
If the input signal from the selected source is digital signal, this unit chooses a digital input automatically.

#### • DIG.1 to DIG.4 : Digital FIXED mode

The SR4400 chooses a digital input regardless of a input signal from the selected source.

#### · ANA : Analog mode

Use this menu to select the digital input jack to be assigned to the input source.



- Select "1.INPUT" in SETUP MAIN MENU with the ▲ or ▼ cursor button.
- **2.** Press the **OK** button to enter the menu.
- Press the ▲ or ▼ cursor button to select the input source.
- **4.** Press **◄** or **►** cursor button to select the input function.
  - Select "DxAUTO", "DIG.x" or "ANA" for input sources
- f. If you finish these setup, press the ▲ or ▼ cursor button to select "TO MAIN MENU" then press the OK button to return the SETUP MAIN MENU.

Or press the ◀ or ▶ cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

#### Notes:

- When a DTS-LD or DTS-CD is playing, this setup is not available. This is to avoid noise being generated from the analog input.
- If "Dx-AUTO" is selected and a DVD, compact disc or LD is fast forwarded during playback, decoded signals may produce a skipping sound. In such cases, change the setting to DIGITAL.
- Same digital input function cannot be set. In this
  case, the previous setting is set to ANALOG.
  Same digital input number cannot be set in Digital
  AUTO mode and Digital Fixed mode. For
  example, D1AUTO and DIG.1 are not set at same
  time.

#### 2. SPEAKER SETUP

After you have installed the SR4400, connected all the components, and determined the speaker layout, it is now time to

perform the settings in the Speaker Setup menu for the optimum sound acoustics for your environment and speaker layout.

Before you perform the following settings, it is important that you first determine the following characteristics:

#### SPEAKER SIZE

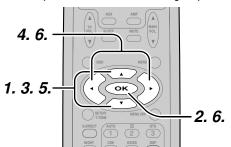
When setting the speaker size in the SPEAKER SIZE sub-menu, use the guidelines given below. Large:

The complete frequency range for the channel you are setting will be output from the speaker.

Small:

Frequencies of the channel you are setting lower than approx. 100Hz will be output from the subwoofer.

If the Subwoofer is set to "NONE" and the front speakers are set to "Large," then the sound may be output from both the left and right speakers.



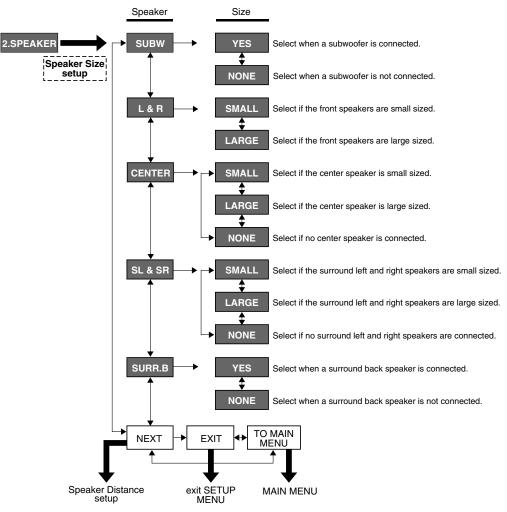
- Select "2.SPEAKER" in SETUP MAIN MENU with ▲ or ▼ cursor button.
- **2.** Press the **OK** button to enter the menu. The first sub-menu item is "Speaker Size" setup.
- Press ▲ or ▼ cursor button to select the each speaker.
- Press ◀ or ► cursor button to select the setting of size to each speaker.
- If you finish these setup, press the ▲ or ▼ cursor button to select "NEXT".

**6.** Press the **OK** button to enter the next "Speaker Distance" setup.

Or press the ◀ or ► cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

Or press the ◀or ► cursor button to select "TO MAIN MENU" then press the **OK** button to return the SETUP MAIN MENU.

### MENU STRUCTURE of Speaker Size setup

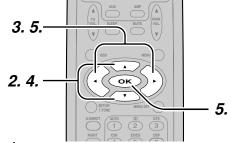


#### SPEAKER DISTANCE

Use this parameter to specify the distance of each speaker's position from the listening position. The delay time is automatically calculated according to these distances.

Begin by determining the ideal or most commonly used seating position in the room.

This is important for the timing of the acoustics to create the proper sound space that the SR4400 and today's sound systems are able to produce. Note that the speakers that you selected "None" for in the Speaker Config sub-menu will not appear here.



- **1.** Enter to the "Speaker Distance setup" from the previous "Speaker Size setup".
- Press ▲ or ▼ cursor button to select the each speaker.
- 4. After finishing the Speaker Distance setup, press the ▲ or ▼ cursor button to select "NEXT".
- **5.** Press the **OK** button to enter the next "Speaker Level" setup.

Or press the ◀ or ▶ cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

Or press the ◀or ► cursor button to select "TO MAIN MENU" then press the **OK** button to return the SETUP MAIN MENU.

Or press the ◀ or ▶ cursor button to select "RETURN" then press the **OK** button to return the previous "Speaker Distance" setup.

#### L&R:

Set the distance from the front left and right speakers to your normal listening position between 1 and 30 feet in 1.0 foot interval (0.3 to 9 meters in 0.3-meter intervals).

#### C:

Set the distance from the center speaker to your normal listening position between 1 and 30 feet in 1.0 foot interval

(0.3 to 9 meters in 0.3-meter intervals).

#### SLR:

Set the distance from the surround left and right speaker to your normal listening position between 1 and 30 feet in 1.0 foot interval (0.3 to 9 meters in 0.3-meter intervals).

#### SW:

Set the distance from the subwoofer to your normal listening position between 1 and 30 feet in 1.0-foot intervals (0.3 to 9 meters in 0.3-meter intervals).

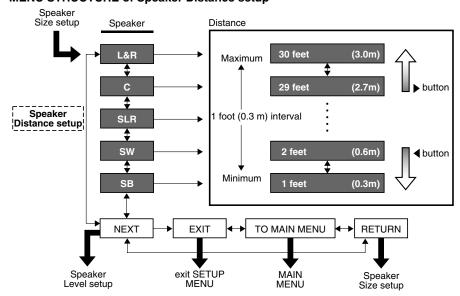
#### SB:

Set the distance from a surround back speaker to your normal listening position between 1 and 30 feet in 1.0-foot intervals (0.3 to 9 meters in 0.3-meter intervals).

#### Note

• Speakers that you selected "No" or "None" for in the Speaker Size menu will not appear.

#### **MENU STRUCTURE of Speaker Distance setup**



#### SPEAKERS LEVEL

Here you will set the volume for each speaker so that they are all heard by the listener at the same level.

#### Note:

• The speaker level settings is not available in 6.1channel input mode and S-Direct mode.

TEST MODE: Selects "MANU (manual)" or "AUTO" for generating mode of test tone ◀ or ▶ cursor button.

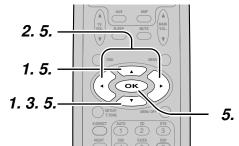
If you select "AUTO" by pressing the  $\blacktriangledown$  button, the test tone will be cycled through in a circular pattern which is L (Left)  $\to$  C (Center)  $\to$  R (Right)  $\to$  SR (Surround Right)  $\to$  SB (Surround Back)  $\to$  SL (Surround Left)  $\to$  SW (Subwoofer  $\to$  L  $\to$ ... increments of 2 seconds for each channel.

Using the ◀ and ▶ cursor buttons, adjust the volume level of the noise from the speaker so that it is the same level for all speaker.

When you select "TO MAIN MENU" by pressing the **OK** button, you can return the SETUP MAIN MENU by pressing the **OK** button. Or press the ▲ or ▼ cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

Or press the ◀ or ▶ cursor button to select "RETURN" then press the **OK** button to return the previous "SPEAKER DISTANCE" setup.

If you select " ${\bf MANU}$ ", adjust the output level of each speaker as follow.

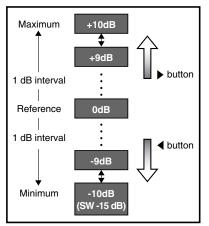


1. When you select "MANUAL" in T.MODE menu by pressing the ▲ or ▼ button, this unit will emit a pink noise from the front left speaker. At this time, adjust the desired level of the master volume. Remember the level of this noise and then press the ▼ button. This unit will emit the pink noise from the center speaker.

Using the 

and 

cursor buttons, adjust the volume level of the noise from the center speaker so that it is the same level as the front left speaker (Note that this can be adjusted to any level between −10 and +10 dB in 1dB intervals).



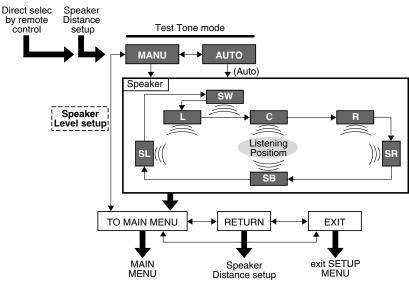
- **3.** Press the ▼ cursor button again. This unit will now emit the pink noise from the front right speaker.
- 4. Repeat steps 2 and 3 above for the front right and other speakers until all speakers are adjusted to the same volume level.
- 5. When you select "TO MAIN MENU" by pressing the OK button, you can return the SETUP MAIN MENU by pressing the OK button. Or press the ▲ or ▼ cursor button to select "EXIT" then press the OK button to exit the SETUP MENU.

Or press the ◀ or ▶ button to select "RETURN" then press the **OK** button to return the previous "SPEAKER DISTANCE" setup.

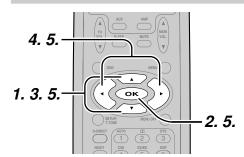
#### Notes:

- Speakers that you selected "None" for in the Speaker Size Setup menu will not appear.
- The setup level for each channel is memorized for reproduction in all surround mode.
- To adjust the speaker levels for 6.1-channel input sources, you will need to use the 6.1CH Level Input setup menu.

#### MENU STRUCTURE of Speaker Level setup



#### 3. PREFERENCE



- Select "3. PREFERENCE" in SETUP MAIN MENU with ▲ or ▼ cursor button.
- Press the OK button.
- Press ▲ or ▼ cursor button to select a desired item.

**4.** Press **◄** or **▶** cursor button to adjust.

5. When you select "TO MAIN MENU" by pressing the ▲ or ▼ button, you can return the SETUP MAIN MENU by pressing the OK button.

Or press the ◀ or ▶ cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

#### **BASS MIX**

- The bass mix setting is only valid when "LARGE" is set for the front speakers and "YES" is set for the subwoofer at stereo playback.
- When the "BOTH" is selected, the low frequency signal range of "LARGE" are produced simultaneously from those channels and the subwoofer channel.

When actual low frequency sound volume is weak depending on room size, use this function to fill low frequency sound equally in the room.

 When "Mix" is selected, subwoofer output is determined depending on the speaker sizes for each channels. If the front speaker size is set to "Large", subwoofer output is only the LFE signal contained in Dolby Digital or DTS processed signals.

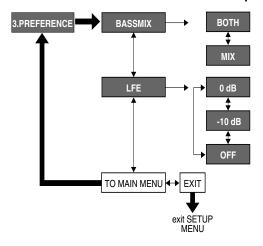
#### Note:

 When Front speaker is set "SMALL", then BASS MIX is set "MIX". (The display appears "BASS MIX = \*\*\*".)

#### LFE

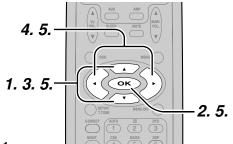
- Select the output level of the LFE signal included in the Dolby Digital signal or the DTS signal.
- Select 0dB, -10 dB or OFF with Left or Right cursor button.
- This setting is available during a digital signal is playback.

#### MENU STRUCTURE of PREFERENCE setup



#### 4. PL II (DOLBY PRO LOGIC II)

In this mode, the SR4400 includes three controls to fine-tune the sound-field as follow.



- Select "4.PRO LOGIC II" in SETUP MAIN MENU with ▲ or ▼ cursor button.
- **2.** Press the **OK** button to enter the menu.
- Press ▲ or ▼ cursor button to select a desired item
- **4.** Press **◄** or **▶** cursor button to select the mode or set the level.
- 5. When you select "TO MAIN MENU" by pressing the ▲ or ▼ button, you can return the SETUP MAIN MENU by pressing the OK button

Or press the ◀ or ▶ cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

#### PANORAMA:

Select the Panorama mode On or Off with ◀ or ► cursor button.

Panorama wraps the sound of the front left and right speakers around you for an exciting perspective.

#### DIMENSION:

Set the Dimension level between 0 and 6 level in 1 level interval with ◀ or ▶ cursor button.

Adjust the soundfield either towards the front or towards the rear.

This can be useful to help achieve a more suitable balance from all the speakers with certain recordings.

#### C WIDTH:

Set the Center width level between 0 and 7 level in 1 level interval with ◀ or ▶ cursor button.

Center Width allows you to gradually spread the center channel sound into the front left and right speakers.

At its widest setting, all the sound from the center is mixed into the left and right.

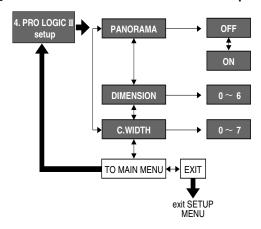
This control may help achieve a more spacious sound or a better blend of the front image.

If "NONE" was selected for the Center speaker setting in the Speaker size, then this setting will not appear.

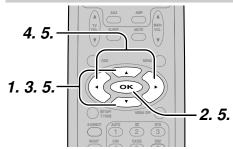
#### Note:

• When Center speaker is set "None", then C.WIDTH is set "7". (The display appears "C.WIDTH = \*\*\*".)

#### MENU STRUCTURE of PRO LOGIC II setup



### 5. CS II (CIRCLE SURROUND II)



- Press the OK button to enter this menu.
- Press ▲ or ▼ cursor button to select desired item.
- **4.** Press **◄** or **▶** cursor button to set the level.
- When you select "TO MAIN MENU" by pressing the ▲ or ▼ button, you can return the SETUP MAIN MENU by pressing the OK button.

Or press the ◀ or ▶ cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

#### TRUBASS:

Set the TRUBASS level between 0 and 6 level in 1 level interval with ◀ or ▶ cursor button.

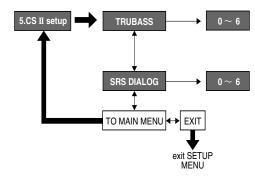
TRUBASS produced by the speakers to be an octave below the actual physical capabilities of the speakers adding exciting, deeper bass effects.

#### SRS DIALOG:

Set the SRS DIALOG level between 0 and 6 level in 1 level interval with ◀ or ▶ cursor button. This can be popped out of the surround audio effects allowing the listener to easily discern what the actors say.

If "NONE" was selected for the Center speaker setting in the Speaker size, then this setting will not appear.

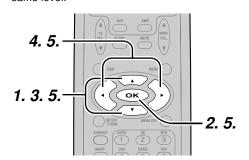
#### MENU STRUCTURE of CS II setup



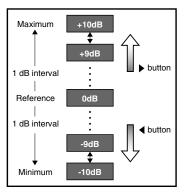
#### 6. 6.1 CH INPUT LEVEL

This sub-menu is to adjust the speaker levels for 6.1-channel input sources.

Here you will adjust the volume for each channel so that they are all heard by the listener at the same level.



- Select "6. 6.1 CH IN" in SETUP MAIN MENU with ▲ or ▼ cursor button.
- 2. Press the **OK** button to enter this menu.
- **3.** Press ▲ or ▼ cursor button to select desired channel.
- **4.** Using the **◄** or **▶** cursor button, adjust the volume level of each channel.



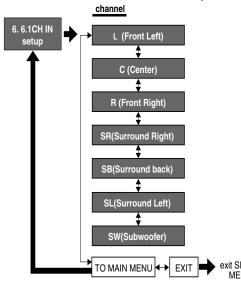
5. When you select "TO MAIN MENU" by pressing the ▲ or ▼ button, you can return the SETUP MAIN MENU by pressing the OK button.

Or press the ◀ or ▶ cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

#### Note:

• The condition of these setup will be memorized to 6.1CH INPUT source.

#### MENU STRUCTURE of 6.1CH IN setup

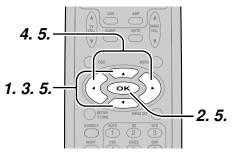


#### 7. SURROUND

This sub menu is to adjust channel levels for each surround setting groups. There are three surround setting groups shown below. Therefore if settings for a surround mode are changed, settings for all other surround modes in the same group are also changed.

#### Surround setting group

- 1:AUTO, DOLBY, DTS, EX/ES, VIRTUAL, STEREO
- 2 : Multi-ch stereo
- 3: CS II



- Select "7. SURROUND" in SETUP MAIN MENU with ▲ or ▼ cursor button.
- Press the OK button.
- To select a desired item, press ▲ or ▼ cursor button.
- Using the 

  or 

  cursor button to select the mode or adjust the volume level of each speaker.
- 5. When you select "TO MAIN MENU" by pressing the ▲ or ▼ button, you can return the SETUP MAIN MENU by pressing the OK button.

Or press the ◀ or ▶ cursor button to select "EXIT" then press the **OK** button to exit the SETUP MENU.

#### SURR-MODE:

Select the desired surround mode with ◀ or ► cursor button.

 If one of the following modes is selected, all other modes are also set to the same. AUTO, DOLBY, DTS, EX/ES, VIRTUAL, STEREO.

#### SURR. L/R:

Adjust the volume level of the surround left/right speaker between -10 dB and +10 dB in 1 level interval with ◀ or ▶ cursor button.

• If "None" was selected for the Surround L/R speaker setting in the Speaker size, then this setting will not appear.

#### SURR. BACK:

Adjust the volume level of the surround back speaker between -10 dB and +10 dB in 1 level interval with ◀ or ▶ cursor button.

• If "None" was selected for the Surround back speakers setting in the Speaker size, then this setting will not appear.

#### CENTER:

Adjust the volume level of the center speaker between -10 dB and +10 dB in 1 level interval with ◀ or ▶ cursor button.

• If "None" was selected for the Center speaker setting in the Speaker size, then this setting will not appear.

#### SUB W:

Adjust the volume level of the subwoofer speaker between -15 dB and +10 dB in 1 level interval with ◀ or ▶ cursor button.

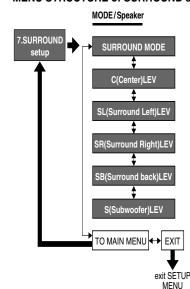
 If "None" was selected for the Subwoofer speaker setting in the Speaker size, then this setting will not appear.

When you select "TO MAIN MENU" by pressing the ▲ or ▼ button, you can return the SETUP MAIN MENU by pressing the **OK** button.

#### Note:

 SURR.L/R, SURR. BACK, CENTER and SUB W volume level are synchronized with SETUP MAIN MENU Speaker Level. (Page 18)

#### MENU STRUCTURE of SURROUND setup

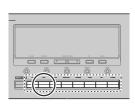


# BASIC OPERATION (PLAY BACK)

#### SELECTING AN INPUT SOURCE.

Before you can listen to any input media, you must first select the input source at the SR4400.

#### E.G.: DVD





To select DVD, simply press the **DVD** button on the front panel or press **DVD** button on the remote. After you have selected DVD, simply turn on the DVD player and play the DVD.

- The input name will appear in the display on the front-panel.
- As the input is changed, the SR4400 will automatically switch to the digital input, surround mode, attenuation, and night mode status that were entered during the configuration process for that source.
- When an audio source is selected, the last video input used remains routed to the VCR1 & DSS/ VCR2 Outputs and Monitor Outputs. This permits simultaneous viewing and listening to different sources.
- When a Video source is selected, the video signal for that input will be routed to the Monitor Outputs jack and will be viewable on a TV monitor connected to the SR4400.

#### **SELECTING THE SURROUND MODE**

#### E.G.: AUTO SURROUND





To select the surround mode during playback, turn the **SURROUND** knob on the front panel or press the surround mode button on the remote.

#### **ADJUSTING THE MAIN VOLUME**





Adjust the volume to a comfortable level using the **VOLUME** control knob on the front panel or **MAIN VOL.** ▲ / ▼ buttons on the remote.

To increase the volume, turn the **VOLUME** knob to clockwise or press **MAIN VOL.** ▲ button on the remote, to decrease the volume, turn it to counterclockwise or press **MAIN VOL.** ▼ button on the remote.

#### Notes:

- The volume can be adjusted within the range of − ∞ to + 18 dB, in steps of 1 dB.
- However, when the channel level is set as described on page 18, if the volume for any channel is set at +1 dB or greater, the volume cannot be adjusted up to +18 dB.

(In this case the maximum volume adjustment range is "+18 dB - Maximum value of channel level)

# TREBLE▼ on the remote. Notes:

BASS♥ on the remote.

• The tone control function can work for the front left and front right speakers.

To adjust the bass effect, press BASSA or

To adjust the treble effect, press TREBLEA or

 When Source Direct mode is set, tone control is disable

## TEMPORARILY TURNING OFF THE SOUND





To temporarily silence all speaker outputs such as when interrupted by a phone call, press the **MUTE** button on the front panel or remote.

This will interrupt the output to all speakers and the head-phone jack, but it will not affect any recording or dubbing that may be in progress.

When the system is muted, the display will show " $\mathbf{MUTE}$ ".

Press the **MUTE** button again to return to normal operation.

# ADJUSTING THE TONE(BASS & TREBLE) CONTROL.



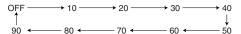
During a listening session you may wish to adjust the Bass and Treble Control to suit your listening tastes or room acoustics.

#### **USING THE SLEEP TIMER**



To program the SR4400 for automatic standby, press **SLEEP** buton on the remote.

Each press of the button will increase the time before shut down in the following sequence.



The sleep time will be shown for a few seconds in the display on the front panel, and it will count down until the time has elapsed.

When the programmed sleep time has elapsed, the unit will automatically turn off.

Note that the **SLEEP** indicator on the display will light up when the Sleep function is programmed. To cancel the Sleep function, press the **SLEEP** button until the display shows to "**SLEEP OFF**" and the SLEEP indicator disappear.

#### **NIGHT MODE**



Press the **NIGHT** button on the remote to turn on the NIGHT mode.

Selecting the Night Mode ON is effective in Dolby Digital only, and it compresses the dynamic range. This softens loud passages such as sudden explosions, to help prevent disturbing others late at night.

To turn off the Night mode, press the **NIGHT** button again.

### SURROUND MODE

The SR4400 is equipped with many surround modes. These are provided to reproduce a variety of surround sound effects, according to the content of the source to be played.

The available surround modes may be restricted depending on the input signal and speaker setup. When using the remote controll, press **AMP** button and press the desired surround mode button.



#### **AUTO**

When this mode is selected, the receiver determines whether the digital input signal is Dolby Digital, Dolby Digital Surround EX, DTS, DTS-ES or PCM-audio.

Surround EX & DTS-ES will operate for multi channel source that has a Dolby Digital Surround EX or DTS-ES auto trigger flag in the digital signal. When a Dolby Digital or DTS signal is input, the number of channels for which the corresponding signal is encoded will be played.

Inputting a Dolby Digital two channel signal with Dolby surround status automatically subjects that signal to Pro Logic II movie processing before play.

PCM 96 kHz source material can be played in this mode.

#### Notes:

- When you use this mode with certain DVD and CD players, performing operations such as "Skip" or "Stop" may momentarily interrupt the output.
- When the signal is not decoded is input for using mode, the mode is changed to AUTO mode automatically. Refer to page 24 to confirm the available decoding mode.

#### DI MODE

### (Dolby Digital, Pro Logic II MOVIE, Pro Logic II MUSIC, Pro Logic)

This mode is used with source materials encoded in Dolby Digital and Dolby Surround.

#### DOLBY DIGITAL

This mode is enabled when playing source materials encoded in Dolby Digital.

Playing multi-channel encoded 5.1-channel Dolby Digital sources provides five main audio channels (left, center, right, surround left and surround right)

and Low Frequency Effect channel.

Dolby Digital EX decoding is not available in this mode.

Dolby Pro Logic II brings the excitement of surround sound to any stereo mix, while making existing Dolby Surround mixes sound more like discrete 5.1 channels Surround sound.

Dolby Pro Logic II has below 3 modes.

#### Pro Logic II MOVIE

This mode provides 5.1 channel surround sound from Dolby Surround encoded stereo movie sound tracks.

#### **Pro Logic II MUSIC**

This mode provides 5.1 channel surround sound from conventional stereo sources, analog or digital, such as CD, tape, FM, TV, stereo VCR, etc. **Pro Logic** 

This mode emulated original Dolby Pro Logic decoding (3/1 surround) suit for Dolby Surround encoded stereo movie soundtracks.

#### Notes:

- Pro Logic II mode is available to 2ch input signal which is encoded Dolby Digital or PCM format.
- PCM-audio signals can be subjected to Pro Logic processing when the sampling frequency is 32 kHz, 44.1 kHz or 48 kHz.

#### EX/ES

This mode provides 6.1 channel surround for DOLBY DIGITAL EX, DTS-ES encoded source material such as DVD.

This mode cannot be used when an analog input has been selected.

#### Dolby Digital EX

In a movie theater, film soundtracks that have been encoded with Dolby Digital surround EX technology are able to reproduce an extra channel which has been added during the mixing of the program.

This channel, called Surround Back, places sounds behind the listener in addition to the currently available front left, front center, front right, surround right, surround left and subwoofer channels.

This additional channel provides the opportunity for more detailed imaging behind the listener and brings more depth, spacious ambience and sound localization than ever before.

Dolby Digital EX is not available in the system without surround back speaker.

#### DTS-ES (Discrete 6.1, Matrix 6.1)

DTS-ES adds the surround back channel audio to the DTS 5.1-channel format to improve the acoustic positioning and makes acoustic image movement more natural with the 6.1-channel reproduction. This receiver incorporates a DTS-ES decoder, which can handle DTS-ES Discrete-encoded and DTS-ES Matrix-encoded program sources from DVD. etc..

DTS-ES Discrete 6.1 features digital discrete recording of all channels including the surround back channels and higher quality of audio reproduction.

DTS-ES is not available in the system without surround back speaker.

#### dts MODE

#### (dts. Neo:6 Cinema, Neo:6 Music)

This mode is for DTS encoded source materials such as LASER DISC, CD, and DVD and some 2channel signal source.

dts: This mode is enabled when playing source materials encoded in dts multi channel.

Playing multi-channel encoded 5.1-channel dts sources provides five main audio channels (left, center, right, surround left and surround right) and Low Frequency Effect channel.

dts-ES decoding is not available in this mode.

The DTS mode cannot use when an analog input has been selected.

#### Neo:6 Cinema, Neo:6 Music

This mode decodes 2-channel signals into 6-channel signals using high-accuracy digital matrix technology.

The DTS NEO:6 decoder has near-discrete properties in the frequency characteristics of the channels as well as in channel separation.

According to the signals to be played back, DTS NEO:6 uses either the NEO:6 CINEMA mode optimized for movie playback or the NEO:6 MUSIC mode optimized for music playback.

#### Note:

 PCM-audio (32 kHz, 44.1 kHz or 48 kHz) and analog source material can playback in this mode.

#### **MULTI CH. ST**

This mode is used to create a wider, deeper and more natural soundstage from two channel source material.

This is done by feeding the left channel signal to both left front and left surround speaker and the right channel signal to both right front and right surround speaker. Additionally, the center channel reproduces a mix of the right and left channel.

#### CIRCLE SURROUND II (CSII-CINEMA, CSII-MUSIC, CSII-MONO)

Circle Surround is designed to enable multichannel surround sound playback of non-encoded and multi-channel encoded material.

Backward compatibility provides listeners with up to 6.1 channels of surround performance from entire collection of music and film, including broadcast, videotape and stereo recorded music. Regarding to source material, you can select CSII-Cinema mode, CSII-Music mode or CSII-Mono mode.

#### Note:

 PCM-audio (32 kHz, 44.1 kHz or 48 kHz) and analog source material can playback in this mode.

#### **VIRTUAL**

This mode creates a virtualized surround sound experience from a two-speaker (front L and R) playback system playing any multi-channel audio source (such as found on DVDs and digital broadcasts), including Dolby Digital, Dolby Pro Logic or DTS.

#### DSP SURROUND (MOVIE, HALL, STADIUM, MATRIX)

These modes provide surround effect processing from each input source material.

They will produce theater, concert hall and stadium like atmospheres. Select as your taste desires.

#### Note:

- When using the remote control, press the numeric button 6 (DSP) to change the surround effect.
- PCM-audio (32 kHz, 44.1 kHz or 48 kHz) and analog source material can playback in this mode.

#### **STEREO**

This mode bypasses all surround processing. Stereo program sources the left and right channels play normally when PCM-audio or analog stereo is input.

With Dolby Digital and DTS sources, the 5.1 multichannels are converted to two channel stereo. 96 kHz PCM source material can be playback in stereo mode.

#### S (SOURCE) - DIRECT

In the source direct mode, the tone control circuit and bass management configuration are bypassed for full range frequency response and the purist audio reproduction.

96 kHz PCM source material can be play back in this mode.

#### Notes:

- Internal speaker size is setup to front L/R = Large. Center = Large, Surround L/R = Large and Subwoofer = yes automatically. Tone controls and additional processing are also defeated.
- · When you use this mode with certain DVD and CD players, performing operations such as "Skip" or "Stop" may momentarily interrupt the output.

#### CAUTION

#### NOTE for DTS signal

- Connected DVD-player, laser-disc player or CDplayer needs to support DTS-digital output. You may not be able to play some DTS source signals from certain CD players and LD players even if you connect the player to the SR4400 digitally. This is because the digital signal has been processed (such as the output level, sampling frequency, or frequency response) and the SR4400 cannot recognize the signal as DTS data.
- \* Depending on the player used, DTS play may produce short noise. This is not a malfunction. In such cases, select the surround mode the "DTS" or "DTS-FS".
- \* While signals from DTS-laser disc or CD are playing in another Surround mode, you cannot switch to digital input or from digital input to analog input by INPUT SETUP in SETUP MAIN MENU or A/D button.
- \* The outputs for the VCR 1 OUT, DSS/VCR 2 OUT, TAPE OUT, and CD-R OUT output analog audio signals. Do not record from CDs or LDs that support DTS using these outputs. If you do. the DTS-encoded signal will be recorded as noise.

#### NOTE for Dolby Digital Surround EX signal

- \* When playing Dolby Digital Surround EXencoded software in 6.1 channels, it is required to set the EX/ES mode.
- \* Note that some of Dolby Digital Surround EXencoded software does not contain the identification signal. In this case, set the EX/ES mode manually.

#### NOTE for 96kHz PCM audio

- \* AUTO, Source- DIRECT, and STEREO modes can be used when playing PCM signals with a sampling frequency of 96 kHz (such as from DVD-Video discs that contain 24 bit. 96 kHz audio). If such signals are input during playback in one of the other surround modes, output from SR4400 will be muted.
- Certain DVD player models inhibit digital output. For details, refer to the player's operation manual.
- \* Some DVD formatted discs featured copy protection. When using such disc. 96 kHz PCM signal is not output from the DVD player. For details, refer to the player's operation manual.

### The relation between the selected surround

The relation between the selected surround mode and the input signal

The surround mode is selected with the surround mode knob on SR4400 or the remote control unit. However, the sound you hear is subject to the relationship between the selected surround mode and input signal. That relationship is as next page:

		_		0	utput	Chan	nel		Front information display	
Surround Mode	Input Signal	Decoding	L/R	С	SL SR	SB	sw	Dot matrix display	Signal format indicators	Channel status
AUTO	Dolby Surr. EX	Dolby Digital EX	0	ō	O	0	0	DOLBY D EX	DID DIGITAL. EX	
AUTO	Dolby D (5.1ch)	Dolby Digital 5.1	18	8	0	-	8	DOLBY D EX	DID DIGITAL, EX	L, C, R, SL, SR, S, LFE L, C, R, SL, SR, LFE
	Dolby D (3.1ch)	Dolby Digital 3.1	16	-	-	-	8	DOLBY D	DID DIGITAL	L, C, n, SL, Sn, LFE
	Dolby D (2ch Surr)	Pro Logic II movie	lŏ	0	Ō	-	ŏ	DOLBY PL II MV	DICITAL DICITAL	L, R, S
	DTS-ES	DTS-ES	lŏ	ŏ	ŏ	0	ŏ	DTS-ES Disc or	dts. ES	L, C, R, SL, SR, S, LFE
	1 510 20	1 510 20	١ŭ	~	-		~	DTS-ES Mtrx	dto, 20	2, 0, 11, 02, 011, 0, 21 2
	DTS (5.1ch)	DTS 5.1	0	0	0	-	0	DTS	dts	L, C, R, SL, SR, LFE
	PCM (Audio)	PCM (Stereo)	Ō	-	-	-	Ō	STEREO	PCM	L, R
	PCM 96kHz	PCM (96kHz Stereo)	0	-	-	-	-	STEREO	PCM, 96kHz	L, R
	Analog	Stereo	0	-	-	-	0	STEREO	ANALOG	-
S-DIRECT	Dolby D Surr. EX	Dolby Digital EX	0	0	0	0	0	DOLBY D EX	DICI DIGITAL, EX	L, C, R, SL, SR, S, LFE
	Dolby D (5.1ch)	Dolby Digital 5.1	0	0	0	-	0	DOLBY D	DICI DIGITAL	L, C, R, SL, SR, LFE
	Dolby D (2ch)	Dolby Digital 2.0	Ö	-	-	-	-	DOLBY D	DICI DIGITAL	L, R
	Dolby D (2ch Surr)	Pro Logic II movie	Ö	0	Ö	-	-	DOLBY PL II MV	DICI DIGITAL, DICI SURROUND	L, R, S
	DTS-ES	DTS-ES	0	0	0	0	0	DTS-ES Disc or	dts, ES	L, C, R, SL, SR, S, LFE
	DTC /F 1ab)	DTS 5.1	0	_	0	-	0	DTS-ES Mtrx DTS	dto	L C D CL CD LEE
	DTS (5.1ch) PCM (Audio)	PCM (Stereo)	16	0	-	-	-	STEREO	dts PCM	L, C, R, SL, SR, LFE L, R
	PCM 96kHz	PCM (Stereo)	16	-	-	-	-	STEREO	PCM, 96kHz	L, R
	Analog	Stereo	lŏ	-	-	-	-	STEREO	ANALOG	
EX/ES	Dolby D Surr. EX	Dolby Digital EX	lŏ	0	ō	ō	O	DOLBY D EX	DID DIGITAL, EX	L, C, R, SL, SR, S, LFE
27020	Dolby D (5.1ch)	Dolby Digital EX	tŏ	ŏ	ŏ	ŏ	ŏ	DOLBY D EX	DICI DIGITAL	L, C, R, SL, SR, LFE
	DTS-ES	DTS-ES	ŏ	ŏ	ŏ	ŏ	ŏ	DTS-ES Disc or	dts, ES	L, C, R, SL, SR, S, LFE
			`	-	-	-	-	DTS-ES Mtrx	213, 23	
	DTS (5.1ch)	DTS-ES	0	0	0	0	0	DTS-ES Mtrx	dts	L, C, R, SL, SR, LFE
DOLBY	Dolby D Surr. EX	Dolby Digital 5.1	0	0	0	-	0	DOLBY D	DICI DIGITAL, EX	L, C, R, SL, SR, S, LFE
(PLII MOVIE)	Dolby D (5.1ch)	Dolby Digital 5.1	0	0		-	0	DOLBY D	DICI DIGITAL	L, C, R, SL, SR, LFE
(PLII MUSIC)	Dolby D (2ch)	Pro Logic II	0	0		-	0	DOLBY PL	DICI DIGITAL	L, R
(PRO LOGIC)	Dolby D (2ch Surr)	Pro Logic II	0	0		-	0		DICI DIGITAL, DICI SURROUND	L, R, S
	PCM (Audio)	Pro Logic II	0	0	0	-	0	or DOLBY PLII MS		L, R
	Analog	Pro Logic II	0	0		-	0		ANALOG	-
DTS	DTS-ES	DTS 5.1	0	0		-	0	DTS	dts, ES	L, C, R, SL, SR, S, LFE
(Neo:6 Cinema)	DTS (5.1ch)	DTS 5.1	0	Ö		-	0	DTS	dts	L, C, R, SL, SR, LFE
(Neo:6 Music)	PCM (Audio) Analog	Neo:6	0	0		0	0	NEO:6 CINEMA or NEO:6 MUSIC	PCM ANALOG	L, R L, R
CSII CINEMA	PCM (Audio)	Neo:6 CSII	16	8	0	0	6	CSII CINEMA	PCM	L, R
CSII MUSIC	Analog	CSII	16	0	0	0	0	or CSII MUSIC	ANALOG	L, n
CSII MONO	Allalog	0011	١×	~	~	~	~	or CSII MONO	71171200	
STEREO	Dolby Surr. EX	Stereo	0	-	-	-	0	STEREO	DICI DIGITAL, EX	L, C, R, SL, SR, S, LFE
•	Dolby D (5.1ch)	Stereo	Ŏ	-	-	-	0	STEREO	DICI DIGITAL	L, C, R, SL, SR, LFE
	Dolby D (2ch)	Stereo	0	-	-	-	О	STEREO	DICI DIGITAL	L, R
	Dolby D (2ch Surr)	Stereo	0	-	-	-	0	STEREO	DICI DIGITAL, DICI SURROUND	L, R, S
	DTS-ES	Stereo	0	-	-	-		STEREO	dts, ES	L, C, R, SL, SR, S, LFE
	DTS (5.1ch)	Stereo	0	-	-	-	0	STEREO	dts	L, C, R, SL, SR, LFE
	PCM (Audio)	Stereo	0	-	-	-	0	STEREO	PCM	L, R
	PCM 96kHz	Stereo	0	-	-	-	-	STEREO	PCM, 96kHz	L, R
MOTUAL	Analog	Stereo	Ö	-	-	-	0	STEREO	ANALOG	-
VIRTUAL	Dolby Surr. EX	Virtual	Ö	-	-	-	0	VIRTUAL	DID DIGITAL, EX	L, C, R, SL, SR, S, LFE
	Dolby D (5.1ch) Dolby D (2ch)	Virtual	0	-	-	-	8	VIRTUAL	DID DIGITAL	L, C, R, SL, SR, LFE
	Dolby D (2ch Surr)	Virtual Virtual	18	-	-	-	0	VIRTUAL VIRTUAL	DIGITAL  DIGITAL , DIDI SURROUND	L, R L, R, S
	DTS-ES	Virtual	16	-	-	-	0	VIRTUAL	dts, ES	L, C, R, SL, SR, S, LFE
	DTS (5.1ch)	Virtual	6	-	-	-	0	VIRTUAL	dts	L, C, R, SL, SR, LFE
	PCM (Audio)	Virtual	16	-	-	-	ŏ	VIRTUAL	PCM	L, R
	Analog	Virtual	lŏ	-	-	-		VIRTUAL	ANALOG	-
MULTI CH ST	Dolby Surr. EX	Dolby Digital EX	lŏ		o			M-CH STEREO	DICI DIGITAL. EX	L. C. R. SL. SR. S. LFE
MOLITOTIOT	Dolby D (5.1ch)	Dolby Digital EX	ŏ		ŏ	ŏ		M-CH STEREO	DID DIGITAL	L, C, R, SL, SR, LFE
	Dolby D (2ch)	Multi Channel Stereo	ŏ	ŏ		-	ŏ	M-CH STEREO	DICI DIGITAL	L, R
	Dolby D (2ch Surr)	Multi Channel Stereo	ŏ		ŏ	-	ŏ	M-CH STEREO	DICI DIGITAL, DICI SURROUND	L, R, S
	DTS-ES	DTS-ES	ŏ	ŏ		0	ŏ	M-CH STEREO	dts, ES	L, C, R, SL, SR, S, LFE
	DTS (5.1ch)	DTS-ES	ŏ	ŏ		ŏ	ŏ	M-CH STEREO	dts	L, C, R, SL, SR, LFE
	PCM (Audio)	Multi Channel Stereo	Ŏ	ō	0	-	ŏ	M-CH STEREO	PCM	L, R
	Analog	Multi Channel Stereo	0	0	0	-	Ō	M-CH STEREO	ANALOG	-
DSP SURROUND	PCM (Audio)	DSP	0	0	0	-	Ō	MOVIE	PCM	L, R
(MOVIE)	Analog	DSP	0	0	0	-	0	or HALL	ANALOG	-
(HALL)			1					or STADIUM		
(STADIUM)	ĺ	1	I					or MATRIX		
(MATRIX)										

Dolby Surr.EX:
Dolby Digital stream with Surround EX flag
DTS-ES:
DTS digital stream with ES flag.
Dolby D(2ch Surr):
2channel Dolby Digital stream with Dolby Surround flag

L/R = Front Left and Right speakers C = Center speaker SL/SR = Surround Left and Right speakers SB = Surround back speaker SW = Sub woofer speaker

### OTHER FUNCTION

# ATTENUATION TO ANALOG INPUT SIGNAL



When the input signal is too high and the voice distorts even by throttling the SR4400 VOLUME control, turn on this function. "ATT" is indicated when this function is activated.

"ATT" indicator will light up when this function is activated. The signal-input level is reduced by about the half. Attenuation will not work with the output signal of TAPE-OUT, CD-R/MD-OUT, VCR1-OUT and DSS/VCR2-OUT.

This function is memorized for each individual input source.

#### LISTENING OVER HEADPHONES

This jack may be used to listen to the SR4400's output through a pair of headphones. Be certain that the headphones have a standard 1/4" stereo phone plug. (Note that the main room speakers will automatically be turned off when the headphone jack is in use.)



#### Notes:

- When using headphones, the surround mode will automatically change to STEREO.
- The surround mode returns to the previous setting as soon as the plug is removed from the jack.

#### **DIMMER (DISPLAY)**





You can change the display brightness of the front display.

Press the **DISPLAY** button to change the brightness.

When this button is pressed, the brightness is changed in the following sequence.

 $\rightarrow$  dimmed  $\rightarrow$  Display Off  $\rightarrow$  normal  $\rightarrow$  dimmed ....

#### Note:

• Only DISP indicator will light up on the front display in display off condition

#### SELECTING ANALOG AUDIO INPUT OR DIGITAL AUDIO INPUT





If you have already assign any digital input to input source.

You can select temporarily the audio input mode for each input source with the **A/D** button on the remote controller or front panel.

When this button is pressed, the input mode is switched in the following sequence.

ightarrow Digital Auto ightarrow Digital ightarrow Analog ightarrow Digital Auto....

In Digital Auto mode, the types of signals being input to the digital and analog input jacks for the selected input source are detected automatically. If no digital signal is being input, the analog input jacks are selected automatically.

In Digital mode, input is fixed to an assigned digital input terminal.

In analog mode, the analog input jacks are selected.

This selecting is temporarily, so the result will not be stored in memory.

If you need to change input mode completely, use SYSTEM SETUP in SETUP menu system. (see page 16)

**RECORDING AN ANALOG SOURCE** 

the record outputs.

**OUT** in the record mode.

In normal operation, the audio or video source selected for listening through the SR4400 is sent to

This means that any program you are watching or

listening to may be recorded simply by placing

machines connected to the outputs for TAPE OUT

, CD-R/MD OUT, VCR1 OUT, and DSS/VCR2

### HT-EQ

analog.



• Digital input signals are only output to the digital

outputs. There is no conversion from digital to

When connecting CD players and other digital

components, do not connect only the digital

terminals, but the analog ones as well.

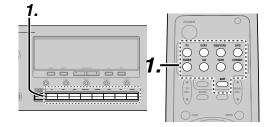
Press the **HT-EQ** button on the front panel to turn on the HT-EQ mode.

The tonal balance of a film soundtrack will be excessively bright and harsh when played back over audio equipment in the home. This is because film soundtracks were designed to be played back in large movie theater environments.

Activating the HT-EQ feature when watching a film made for movie theaters corrects this and restores the correct tonal balance.

The HT-EQ feature can be activated only while in Dolby Pro Logic Mode, or while decoding Dolby Digital or DTS encoded material.

# To record the input source signal you are currently watching or listening to



- 1. Select the input source to record by pressing the corresponding input selector button.

  The input source is pour selected and you may
  - The input source is now selected and you may watch or listen to it as desired.
- Outputs the currently selected input source signal to the TAPE OUT, CD-R/MD OUT, VCR1 OUT, and DSS/VCR2 OUT outputs for recording.
- Start recording at the recording component as desired.

#### Notes:

- If you change the input source during recording, you will record the signals from the newly selected input source.
- You cannot record the surround effects.

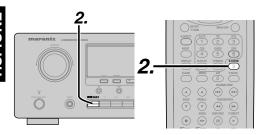
#### 6.1 CH INPUT.

The SR4400 is equipped for future expansion through the use of Multi channel SACD multi channel player or DVD-Audio player.

This is selected, the input signals connected to the Front left, Front right, Center, Surround left, Ssurround right and Surround back channels of the 6.1 CH. In jacks are output directly to the front (left and right), center, surround (left and right) and surround back speaker systems as well as the preout jacks without passing through the surround circuitry.

In addition, the signal input to the SW (subwoofer) jack is output to the PRE OUT SW (subwoofer) jack.

When 6.1 CH. INPUT is selected, the last video input used remains routed to the Monitor Outputs. This permits simultaneous viewing with video sources.



- Select a desired Video source to decide the routed video signal to the Monitor Outputs.
- Press the 6.1 CH-IN button on the front panel or on the remote to switch the 6.1 channel input.
- If necessary to adjust the output level of each channel, use "6.1 Ch. INPUT LEVEL" in SETUP menu system as desired.

Adjust the speaker output levels so that you can hear the same sound level from each speaker at the listening position. For the front left, front right, center, surround left, surround right and surround back speakers, the output levels can be adjusted between -10 to +10 dB.

The subwoofer can be adjusted between -15 and +10 dB.

These adjusting result will be stored to 6.1 Ch. INPUT condition. (see to page 20)

 Adjust the main volume with the MAIN VOLUME knob or the VOL buttons on the remote.

To cancel the 6.1 Ch. INPUT setting, press the **6.1 CH-IN** button on the front panel or on the remote.

#### Notes:

- When the 6.1 Ch. Input is in use, you may not select a surround mode, as the external decoder determines processing.
- In addition, there is no signal at the record outputs when the 6.1 Ch. Input is in use.

# BASIC OPERATION (TUNER)

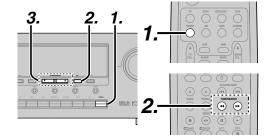
#### LISTENING TO THE TUNER

Frequency scan step for AM is selectable. Default setup is 10 kHz step, if your country's standard is 9 kHz step, Press **TUNER** button on the remote more than 6 seconds. Scan step will change.

#### Note:

• Preset memory for the tuner will clear by changing this setup.

#### **AUTO TUNING**



#### (USING THE SR4400)

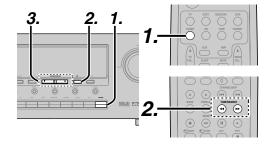
- To select tuner and desired band (FM or AM), press the TUNER button on the front panel.
- Press the F/P(Frequency/Preset) button on the front panel to appears frequency on the display.
- Press the TUNING ▲ or ▼ button on the front panel for more than 1 second to start the Auto tuning function.
- **4.** Automatic searching begins then stops when a station is tuned in.

#### (Using the remote control unit)

- To select tuner and desired band (FM or AM), press the TUNER button twice within in two seconds on the remote.
- Automatic searching begins then stops when a station is tuned in.

If tuning does not stop at the desired station, use to the "Manual tuning" operation.

#### **MANUAL TUNING**



#### (USING THE SR4400)

- 1. To select tuner and desired band (FM or AM), press the **TUNER** button on the front panel
- Press the F/P(Frequency/Preset) button on front panel to appears frequency on the display.
- **3.** Press the **TUNING** ▲ or ▼ button.

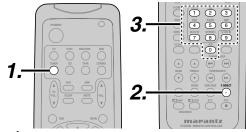
#### (Using the remote control unit)

- To select tuner and desired band (FM or AM), press TUNER button twice within in two seconds on the remote.
- Press 

  or 

  on the remote to tune in the desired station.

#### **DIRECT FREQUENCY CALL**



- To select tuner and desired band (FM or AM), press the TUNER on the remote.
- Press the F.DIRECT button on the remote, display will show "FREQ - - - ".
- **3.** Input your desired station's frequency with numeric buttons on the remote.
- The desired station will automatically be tuned.

#### (FM) TUNING MODE (AUTO STEREO OR MONO)





When in the auto stereo mode, **AUTO** indicator keeps to light on the display.

The "ST" indicator lights on when a stereo broadcast is tuned in.

At open frequencies, the noise is muted and the "TUNED" and "ST" indicators turn off.

If the signal is weak, it may be difficult to tune into the station in stereo. In such a case, press the MODE button on the front panel or on the remote. "AUTO" indicators turn off ,FM stereo broadcasts are received in monaural and the "ST" indicator turns off.

To return to auto stereo mode, press the **MODE** button on the front panel or on the remote again. **AUTO** indicator lights on the display.

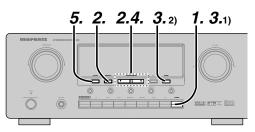
#### PRESET MEMORY

With this unit you can preset up to 30 FM/AM stations in any order.

For each station, you can memorize the frequency and reception mode if desired.

#### **AUTO PRESET MEMORY**

This function automatically scans the FM and AM band and enters all stations with proper signal strength into the memory.



- To select FM , press the TUNER button on the front panel.
- While pressing the MEMORY button, press the TUNING ▲ button to up.

- "AUTO PRESET" will appear on the display, and scanning starts from lowest frequency.
- Each time the tuner finds a station, scanning will pause and the station will be played for five seconds.

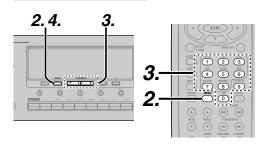
During this time, the following operations are possible.

- · The band can be changed by TUNER button.
- If no button is pressed during this period, the current station is memorized in location Preset

If you wish to skip the current station, press the **TUNING** ▲ button during this period, this station is skipped and auto presetting continues.

Operation stops automatically when all 30 preset memory positions are filled or when auto scanning attains the highest endof all bands. If you desire to stop the auto preset memory at anytime, press the CLEAR button.

#### MANUAL PRESET MEMORY



#### (Using the SR4400)

- **1.** Tune into the radio station you desire (Refer to the "MANUAL TUNING" or "AUTO TUNING" section).
- Press the **MEMORY** button on the front panel. "--" (preset number) starts blinking on the
- Select the preset number by pressing the TUNING ▲ or ▼ button, while this is still blinking (approx. 5 seconds)
- **4.** Press the **MEMORY** button again to enter. The display stops blinking.

The station is now stored in the specified preset memory location.

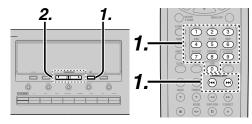
#### (Using the remote control unit)

- 1. Tune into the radio station you desire (Refer to the "MANUAL TUNING" or "AUTO TUNING"
- Press the **MEMO** button on the remote unite. "--" (preset number) starts blinking on the
- Enter the desired preset number by pressping numeric buttons.

#### Note:

• When entering a single digit number (2 for example), either input "02" or just input "2" and wait for a few seconds.

#### **RECALLING A PRESET STATION**



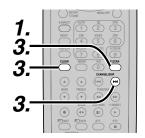
#### (Usina the SR4400)

- Press the **F/P** button to show the preset station on the display.
- 2. Select the desired preset station by pressing the **TUNING** ▲ or ▼ button on the front panel

#### (Using the remote control unit)

Press the or button to select the desired preset station, or input your desired preset channel with numeric buttons on the remote.

#### PRESET SCAN

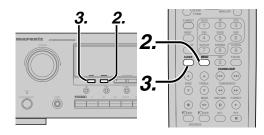


#### (Using the remote control unit)

- 1. Press the **P.SCAN** on remote. "PRESET SCAN" appears on the display and then the preset station with the lowest preset
- number is recalled first. 2. Preset stations are recalled in sequence (No.1  $\rightarrow$  No.2  $\rightarrow$  etc.) for 5 seconds each.
- No stored preset number will be skipped. 3. You can fast forward the preset stations by
  - pressping the ▶ continuously. When the desired preset station is received. cancel the preset scan operation by pressping the CLEAR or P.SCAN.

#### CLEARING STORED PRESET STATIONS

You can remove preset stations from memory using the following procedure.



- 1. Recall the preset number to be cleared with the method described in "RECALLING" a preset station.
- Press the **MEMORY** button on the front panel or press **MEMO** button on the remote.
- Stored preset number blinks in the display for 5 seconds. While blinking, press the CLEAR button on the front panel or press CLEAR on the remote unit.
- 4. "xx CLEAR" appears on the display to indicate that the specified preset number has been cleared.

#### Notes:

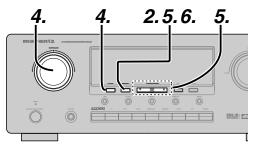
• To clear stored all preset stations, press and hold the **CLEAR** and the **F/P** buttons for two seconds.

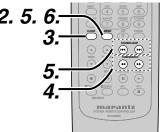
#### NAME INPUT OF THE PRESET STATION.

This function allows the name of each preset channel to be entered using alphanumeric characters.

Before name inputting, need to store preset stations with the preset memory operation.

stations with the preset memory operation.





- 1. Recall the preset number to be inputted name with the method described in "RECALLING" a preset station.
- 2. Press the **MEMORY** button on the front panel or press **MEMO** on the remote for more than 3 seconds.
- 3. The left most column of the station name indicator flashes, indicating the character entry ready status.
- **4.** When the **SELECT** knob is turned or press **←** / ▶ button on the remote, alphabetic and numeric characters will be displayed in the following order:

$$\begin{array}{c} \textbf{A} \rightarrow \textbf{B} \stackrel{\rightarrow}{\rightarrow} \textbf{C} \dots \textbf{Z} \rightarrow \textbf{1} \rightarrow \textbf{2} \rightarrow \textbf{3} \dots \dots \textbf{0} \rightarrow \textbf{-} \rightarrow \textbf{+} \\ \rightarrow / \rightarrow (\textbf{Blank}) \rightarrow \textbf{A} \\ \qquad \qquad \textbf{UP} \rightarrow \\ \leftarrow \textbf{DOWN} \end{array}$$

To clear the input charcter, press the **CLEAR** button on the front panel or on the remote.

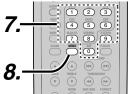
After selecting the first character to be entered, press the MEMORY button on the front panel, or press MEMO button on the

The entry in this column is fixed and the next column starts to flash. Fill the next column same as.

To move back and forth between the characters, press the **TUNING** ▲ / ▼ button or press ◄◄ / ▶► buttons on the remote.

#### Note:

- Unused columns should be filled by entering blanks.
- 6. To save name, press the MEMORY button, press MEMO button on the remote for more than 2 seconds.
- You can input the alphabetic and numeric characters with the ten keypad of the remote control in the previous step 4 and 5.



- 7. Enter the character using the ten keypad. For example, to enter "A":
  - 1) Press the "1" button. "A" appears on the display column.
  - 2) Every time the 1 button is pressed, the displayed character changes in the order:  $A \rightarrow B \rightarrow C \rightarrow 1 \rightarrow A...$

Pressing buttons other than the "1" button cause different characters to be displayed in a similar way, so that other alphanumeric characters can be entered. To enter a blank or space, press the "9" button.

When the desired character is displayed, press the MEMO button to confirm the entry in this column and move to the next column. After having filled all of the 8 columns, press the MEMO button, for more than 1 second to confirm the entry.

### TROUBLESHOOT-ING

In case of trouble, check the following before calling for service:

- 1. Are the connections made properly?
- 2. Are you operating the unit properly following user's guide ?
- 3. Are the power amplifiers and speaker working properly?

If the unit does not operate properly, check items shown in the following table.

If your trouble cannot be recovered with the remedy actions listed in the following table, malfunction of the internal circuitry is suspected; immediately unplug the power cable and contact your dealer, nearest Marantz distributor or the Marantz Service Center in your country.

SYMPTOM	CAUSE	REMEDY				
SR4400 cannot be turned up.	The power plug is not connected.	Connect the power plug to the outlet.				
No sound and picture are output even when power is on.	Mute is on.	Cancel mute using the remote control unit.				
output even when power is on.	The input cable is not connected correctly.	See the connection diagram and connect the cables correctly.				
	The master volume control is turned all the way down.	Adjust the master volume.				
	The function selector position is wrong.	Select correct position.				
Speaker does not outputting any sound.	The headphones are connected to the headphone jack.	Disconnect the headphones. (Speakers will not output sound when headphones are connected.)				
Sound and pictures from other than equipment selected with the function selector.	Input cable connected incorrectly.	Connect the cable correctly by referring to the connection diagram.				
Sound from the wrong channel is output from the speaker.	Speaker cable connected incorrectly.	Connect the cable correctly by referring to the connection diagram.				
No sound is output from the center speaker.	The center speaker cable connection is incomplete.	Connect the cable correctly.				
	STEREO has been selected for Surround mode.	When STEREO is selected for Surround mode, no sound will be output from the center speaker. Set another Surround mode.				
	Center = NONE has been selected in SETUP mode.	Make the correct setting.				
No sound is output from the surround speakers.	The surround speaker cable connection is incomplete.	Connect the cable correctly.				
	STEREO has been selected for Surround mode.	When STEREO has been selected for Surround mode, no sound will be output from the surround speaker. Set another Surround mode.				
	Surround = NONE has been selected in SETUP mode.	Make the correct setting.				
No sound is output from the surround back	The surround back speaker cable connection is incomplete.	Connect the cable correctly.				
	Surround mode is not EX/ES mode.	Set surround mode EX/ES.				
	Surround back = NONE has been selected in SPEAKERS SIZE SETUP.	Make the correct setting.				
Can not select EX/ES mode.	Surround back = NONE has been selected in SPEAKERS SIZE SETUP.	Make the correct setting.				
	Input signal is incompatible.	Use 5.1channel source.				
Can not select Pro Logic II mode.	Input signal is incompatible.	Use 2 channel Dolby Digital input signal, PCM input signal or analog input signal.				
Can not select Neo:6 mode.	Input signal is incompatible.	Use PCM input signal or analog input signal.				

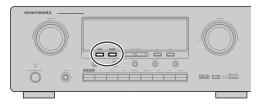
SYMPTOM	CAUSE	REMEDY		
Can not select CSII mode.	Input signal is incompatible.	Use PCM input signal or analog input signal.		
No output to Sub Woofer Out.	Sub-woofer = NONE has been selected in SETUP mode.	Select Sub-woofer = YES.		
Noise is produced during DTS- encoded CD or laser disc play.	Analog has been selected for input.	Be sure to perform digital connection, select digital input, then play.		
A specific channel does not produce output.	Nothing recorded on source.	Check the encoded channel on the source side.		
FM or AM reception fails.	Antenna connection is incomplete.	Correctly connect the indoor FM and AM antenna to FM and AM antenna outlets.		
Noise is heard during AM reception.	Reception is affected by other electrical fields.	Try changing location where the AM indoor antenna is set up.		
Noise is heard during FM reception.	The radio waves from the broadcasting station are weak.	Install an FM outdoor antenna.		
Cannot get programmed station when the PRESET button is pressed.	Preset data has been erased.	Disconnecting power plug for long periods of time will erase preset data. If that happens, input the preset data again.		
Control with the remote control	Batteries are consumed.	Replace all the batteries with new ones.		
unit fails.	Remote controller's function-key setting is wrong.	Select different position from which equipment will be controlled.		
	The distance between this SR4400 and the remote commander is too far.	Move closer to this SR4400.		
	Something is blocking SR4400 and the remote commander.	Remove offending object.		

#### GENERAL MALFUNCTION

If the equipment malfunctions, this may be because an electrostatic discharge or AC line interference has corrupted the information in the equipment memory circuits. Therefore:

- disconnect the plug from the AC line supply
- after waiting at least three minutes, reconnect the plug to the AC line supply
- re-attempt to operate the equipment

#### HOW TO RESET THE UNIT



#### Memory backup

 In case a power outage occurs or the power cord is accidentally unplugged, the SR4400 is equipped with a backup function to prevent memory data such as the preset memory from being erased. Should the operation or display seem to be abnormal, reset the unit with the following procedure.

The SR4400 is turned on, press and hold the **CLEAR** and **MEMORY** buttons simultaneously for 3 seconds or more.

Remember that the procedure will reset the settings of the function selector, Surround mode, delay time, TUNER PRESET etc., to their initial settings.

# TECHNICAL SPECIFICATIONS

### **FM TUNER SECTION**

Frequency Range	87.5 - 108.0 MHz
Usable Sensitivity	
Signal to Noise Ratio	Mono/Stereo 76/72 dB
Distortion Mono/Stereo	Mono/Stereo 0.2/0.3 %
Stereo Separation	1 kHz 45 dB
Alternate Channel Selectivity	± 400 kHz 60 dB
Image Rejection	98 MHz 70 dB
Tuner Output Level	1 kHz, $\pm$ 75 kHz Dev800 mV

#### **AM TUNER SECTION**

Frequency Range	520 - 1710 kHz
Signal to Noise Ratio	50 dB
Usable Sensitivity	Loop 500 μ V/m
Distortion	400 Hz, 30 % Mod. 0.5 %
Selectivity	± 20 kHz 70 dB

#### **AUDIO SECTION**

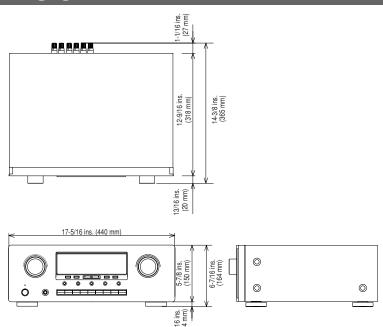
Power Output (20Hz – 20kHz / THD=0.08%)		00/4//04
Front L&R		
Center	8ohms	80W/Ch
Surround L&R	8ohms	80W/Ch
Surround Back	8ohms	80W/Ch
Front L&R	6ohms	95W/Ch
Center		
Surround L&R	6ohms	95W/Ch
Surround Back	6ohms	95W/Ch
Input Sensitivity/Impedance 36	60 mV/ 4	7 kohms
Signal to Noise Ratio (Analog Input/Source I	Direct)	95 dB
Frequency Response		
(Analog Input/Source Direct)		
(Digital Input/96kHz PCM)	Hz-45kH	1z(+3dB)

### **VIDEO SECTION**

Television Format	
GENERAL	
Power Requirement Power Consumption Weight	325W
ACCESSORIES	
Remote Control Unit RC5400SR AAA-size batteries FM Antenna	
AM Loop Antenna	
Warranty Card (for USA)	
Warranty Card (for CANADA)	
000: 00:00	

Specifications subject to change without prior notice.

# DIMENSION



# SETUP CODES

### CD

Aiwa				0151,	0184
Burmester					0447
California Aud	lio Labs			0056,	0330
Carver	01	84,	0206,	0326,	0464
DKK					
Denon					0030
Emerson					0332
Fisher				0201,	0206
Garrard				0420,	0447
Genexxa					
Harman/Kardo	on			0184,	0200
Hitachi					0059
JVC					0099
Kenwood			0055,	0064,	0217
Krell					0184
LXI					0332
Linn					
Luxman	0062, 012	20, 0	)293,	0354,	0355
	04	57,	0459,	0510,	0516
MCS					0056
MTC					0447
Magnavox Marantz				0184,	0332
Marantz	0056, 018	34, 0	)207,	1207,	0999
Mission					0184
NAD	. 0046, 03	26,	0343,	0747,	0748
NSM Nakamichi					0184
Nakamichi	. 0106, 01	74,	0466,	0471,	0691
Nikko					0201
Onkyo					
Optimus	0027, 005	59, 0	0064,	0172,	0206
Panasonic	03	32,	0447,	0464,	0495
Panasonic				0056,	0330
Parasound					0447
Philips					
Pioneer	00	59,	0271,	0332,	0495
Polk Audio					0184
Proton					0184
QED					0184
Quasar					0056
RCA 0059					
Realistic					
Rotel					
SAE					
Sansui					
Sanyo					0206
-					

Scott		0332
Sears		0332
Sharp	0064,	0207
Sony	0027,	0212
•		
Геас	. 0201, 0207, 0420,	0447
	0046,	
Nards	0080,	0184

### **MD PLAYERS**

Denon	190
Kenwood	1708, 185
Marantz	120
Onkyo	189
Optimus	109
Pioneer	
Sharp	
Sherwood	109
Sony	
Yamaha	191

# CDR

Marantz 0	99	)	1	(	
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### TAPE

Aiwa	0056, 022
Carver	005
Denon	010
Garrard	0335, 033
Harman/Kardon	0056, 020
JVC	0271, 030
Kenwood	009
Magnavox	005
Marantz	005
NAD	
Onkyo	0162, 030
Optimus	0054, 024

	0054, 0126,	
Polk Audio		0056
RCA	0054,	0247
	0418,	
Sony	0197, 0270,	0318
Teac	0307, 0335, 0336, 0418,	0419
Technics		0256
Victor		0300
Wards		0054
	0121,	

### SAT (DSS)

AlphaStar			0799
Echostar			
Expressvu			
General Instrument			
HTS			
Hitachi			0846
Hughes Network Systems.			0776
JVČ			
Jerrold		0388,	0654
Magnavox			
Memorex			
Next Level			0896
Panasonic			0728
Philips	0749,	0751,	1103
Primestar		0388,	0654
RCA0170,	0419,	0593,	0882
Radio Shack			0896
Sony			0666
Star Choice			0896
Toshiba		0776,	0817
Jniden		0749,	0751
Zenith			0883

### TV

AOC 004	6,005
Admiral 012	0, 049
Aiko	011
Akai	005
Alaron	020
Ambassador	020
America Action	020
Anam	020

Audiovox	0119, 0207, 0478,	0650
Baysonic		0207
	0043,	
	0263,	
CXC		0207
	0057,	
	0119,	
Citizon	0057, 0083, 0087,	0470
,		
Crown		0207
Curtis Matnes	0043, 0057, 0074,	
	0081, 0083, 0087, 0120,	
_	0181, 0193, 0478, 1174,	13/4
	. 0046, 0119, 0478, 0650,	
Daytron		0046
	0044,	
	0747,	
Emerson	0046,0181,0204,0205,	0206,
	0207, 0263, 0490, 0650,	0651
Fujitsu	0206,	0710
	0206,	
Futuretech		0207
GE 0074,	0078, 0120, 0205, 0478,	1174,
		1374
Gibralter	0044, 0046,	0057
GoldStar	0046, 0057, 0083,	0205
	0206,	
Hallmark		0205
	on	
	on	
	0043, 0083,	
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JUL		UUOI

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JVC	0800
	0207
	0057, 0207
	0074, 0081, 0181, 0183, 0205
Logik	
Luxman	
MGA	0046, 0057, 0177, 0205
	0046, 0057, 0083, 0087
	0057, 0081, 0206, 1281
Majestic	0043
Marantz	0057, 0081, 1581
Matsushita	0277
Megatron	0172, 0205
Memorex	. 0043, 0083, 0177, 0181, 0205,
	0046, 0120, 0177, 0205
NIC	0119
Onwa	0207
Optimus	0181, 0193, 0277
Optonica	0120, 0192
Optonica Orion	
Optonica Orion Panasonic	
Optonica Orion Panasonic	
Optonica Orion Panasonic Penney	
Optonica Orion Panasonic Penney	
Optonica Orion Panasonic Penney	
Optonica Orion Panasonic Penney Philco Philips	
Optonica Orion Panasonic Penney Philco Philips	
Optonica Orion Panasonic Penney Philco Philips Pilot	
Optonica Orion Panasonic Penney Philco Philips Pilot Pioneer Portland	
Optonica Orion Panasonic Penney Philco Philips Pilot Pioneer Portland Prism	
Optonica Orion Panasonic Penney Philco Philips Pilot Pioneer Portland Proscan	
Optonica Orion Panasonic Penney Philco Philips Pilot Portland Portland Proscan Proton	
Optonica Orion Panasonic Penney Philco Philips Pilot Portland Prism Proscan Proton Pulsar	
Optonica Orion Panasonic Penney Philco Pilot Pioneer Portland Proscan Proton Pulsar Quasar	
Optonica Orion Panasonic Penney Philco Philips Pilot Portland Proscan Proton Pulsar Quasar	
Optonica Orion Panasonic Penney Philco Pillot Pioneer Portland Proscan Proton Pulsar Quasar RCA 0046	
Optonica Orion Panasonic Penney Philco Pillot Pioneer Portland Proscan Proton Pulsar Quasar RCA 0046	
Optonica Orion Panasonic Panasonic Penney Philco Philips Pilot Pioneer Portland Proscan Proton Pulsar Quasar RCA 0046 Radio Shack	
Optonica Orion Panasonic Panasonic Penney Philco Philips Pilot Pioneer Portland Proscan Proton Pulsar Quasar RCA 0046 Radio Shack	
Optonica Orion Panasonic Panasonic Penney Philco Philips Pilot Pioneer Portland Proscan Proscan Proton Quasar RCA 0046 Radio Shack Realistic	
Optonica Orion Panasonic Panasonic Penney Philco Philips Pilot Pioneer Portland Proscan Proscan Proton Quasar RCA 0046 Radio Shack Realistic Runco	
Optonica Orion Panasonic Panasonic Penney Philco Philips Pilot Pioneer Portland Proscan Proscan Proton Quasar RCA 0046 Radio Shack Realistic Runco	

Semivox	Samsung Sansei Sansui Sanyo Scimitsu Scotch Scott Sears	. 0046, 0205, 0206, 020	37, 0205 0478 0490 0181 0046 0205 07, 0263 1, 0183,
Signature       0043         Sony       0027         Soundesign       0205, 0206, 0207         Starlite       0207         Supreme       0027         Sylvania       0057, 0081         TMK       0083, 0204, 0205         TNCi       0 044         Tandy       0120         Technics       0078, 0277         Technol Ace       0206         Techwood       0078, 0083         Teknika       0043, 0046, 0081, 0083, 0087, 0119         More thanken       0083         Toshiba       0087, 0181, 0183, 1283         Vector Research       0057         Vidikron       0081         Vidikron       0046, 0205         Wards       0043, 0046, 0057, 0081, 0083, 0083, 0192, 0205, 0206         White Westinghouse       0490, 0650, 0651         Yamaha       0046, 0057         Zenith       0043, 0044, 0119, 0490, 0651         VCR         Adwentura       0027         Aiko       0305         Aiwa       0027, 0064         America Action       0305	Semivox Semp Sharp	0120, 019	0207 0183 92, 0715
Sylvania       0057, 0081         TMK       0083, 0204, 0205         TNCi       0 044         Tandy       0120         Technics       0078, 0277         Technol Ace       0206         Techwood       0078, 0083         Teknika       0043, 0046, 0081, 0083, 0087, 0119,	Signature Sony Soundesign Starlite	0205, 020	0043 0027 06, 0207 0207
Technics	Sylvania TMK TNCi	0083, 020	57, 0081 04, 0205 0 044
Telefunken	Technics Technol Ace . Techwood	00	78, 0277 0206 78, 0083
Victor       0080         Vidikron       0081         Vidtech       0046, 0205         Wards       0043, 0046, 0057, 0081, 0083,         —       0192, 0205, 0206         White Westinghouse       0490, 0650, 0651         Yamaha       0046, 0057         Zenith       0043, 0044, 0119, 0490, 0651         VCR         Admiral       0075, 0236         Adventura       0027         Aiko       0305         Aiwa       0027, 0064         America Action       0305	Telefunken Toshiba	0177, 02	206, 0207 0083 33, 1283
Mhite Westinghouse	Victor Vidikron Vidtech	004	0080 0081 46, 0205
Admiral       0075, 0236         Adventura       0027         Aiko       0305         Aiwa       0027, 0064         America Action       0305	White Westing Yamaha	0192, 020 ghouse 0490, 069 004	05, 0206 50, 0651 46, 0057
Adventura       0027         Aiko       0305         Aiwa       0027, 0064         America Action       0305			•
Asha	Adventura Aiko Aiwa America Actio American Higl	002 n	0027 0305 27, 0064 0305 0062

A 1:				0004
Audiovox				
Beaumark				
Bell & Howell				
Broksonic	0148,	0211,	0236,	0506
CCE			0099.	0305
Calix				
Canon				
Carver				
Cineral				
Citizen			0064,	0305
Colt				0099
Craig				
Curtis Mathes				
Cybernex				0267
Daewoo			0072,	0305
Denon				0069
Dynatech				0027
Electrohome				
Electrophonic				
Emerex				
Emerson 0027,				
Fisher		0236,	0305,	0506
Fisher			00/4,	0131
Fuji				0062
Funai				
Funai GE				
	0062,	0075,	0087,	0267
GEGarrard	0062,	0075,	0087,	0267 0027
GE Garrard Go Video	0062,	0075,	0087,	0267 0027 0459
GEGarrardGo VideoGoldStar	0062,	0075,	0087,	0267 0027 0459 0064
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027 0108
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027 0108 0099
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027 0108 0099 0069
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027 0108 0099 0069
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027 0108 0099 0069 0069
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027 0108 0099 0069 0069 0305
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027 0108 0099 0069 0069 0305 0099
GE	0062,	0075,	0087,	0267 0027 0459 0064 0027 0074 0027 0108 0099 0069 0069 0305 0099
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Sharp		0075

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Singer		
Sony	. 0027, 0059, 0062,	1059
Sylvania	. 0027, 0062, 0070,	0108
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